

Historic, archived document

Do not assume content reflects current
scientific knowledge, policies, or practices.



1.941
58F32



United States
Department of
Agriculture

Economics
and Statistics
Service

FdS-281

May 1981

Feed

OUTLOOK & SITUATION

COMMERCIAL RECORDS

PLANTING RECORDS

2

1/ Aggregated data on corn, sorghum, oats, and barley. 2/ The marketing year for corn and sorghum begins October 1; June 1 for oats and barley. 3/ Uncommitted inventory. 4/ Includes total government loans (original and resale). 5/ Estimated. 6/ Excludes support payment. 7/ Disaster payments. 8/ Deficiency and disaster payments. 9/ Deficiency, disaster, and diversion payments. *Reflects CRB estimate of 'root mean square error' for production and comparable estimates of variability for other items. Chances are about 2 out of 3 the final outcome would fall within the ranges.

In This Issue

CONTENTS

	<i>Page</i>
Summary	3
Situation and Outlook for Feed Grains	5
Domestic Feed Situation	8
World Grain Situation	9
Special Article: Food, Seed, and Industrial Uses of Feed Grains	10
Special Article: Behavior of the Corn Basis	13
List of Tables	35

CONTRIBUTORS

George Allen (202) 447-8444
Robert Green (202) 447-8444
Janet Livezy (202) 447-8444
George Rockwell, Jr. (202) 447-8776
Walter Spilka, Jr. (202) 447-8776
Shirley Frye (202) 447-8776

Approved by
The World Food and Agricultural
Outlook and Situation Board
and Summary released
May 15, 1981

National Economics Division
Economics and Statistics Service
U.S. Department of Agriculture
Washington, D.C. 20250

Summary

Feed Grain Supplies Remain Tight; Larger Crops Likely Next Fall

Although U.S. feed grain supplies remain tight, last winter's sharply lower use and prospects for continued weak demand indicate that 1980/81 ending stocks will be larger than anticipated. But, at an estimated 31 million metric tons, stocks next fall would still be 40 percent below a year earlier. Carryover would be only 14 percent of total use, compared with an average stocks-to-use ratio of 22 percent during 1977-79 and 12 percent during 1974-76, when supplies were particularly tight.

Total feed grain disappearance in 1980/81 is estimated at 220 million tons, down from last season's record 232 million. Reflecting lower livestock-to-grain price ratios, smaller animal numbers, and increased roughage feeding, 1980/81 feed use is estimated at 123 million tons, 11 percent below last season and the smallest since 1977/78. But, expected exports are slightly higher at a record 73 million tons and other domestic uses, at 24 million, are 11 percent above last season.

Because of this season's smaller supply, ending stocks of corn are estimated at 22 million tons (866 million bushels), 46 percent below the October 1980 carryin and the smallest since 1975/76. Based on the April 1 stocks report (which indicated sharply lower feed use during January-March) and prospects for lower beef and pork

production, feed use for 1980/81 is estimated at 104 million tons (4.1 billion bushels), 9 percent below last season. Moreover, the reduction more than offset a 4-percent rise in exports this season. Corn exports are estimated at 65 million tons (2,550 million bushels).

Corn farm prices for 1980/81 will likely average around \$3.20 per bushel, up from \$2.52 in 1979/80. During the first 7 months, prices averaged about \$3.15, with a high of \$3.25 in March. New-crop prospects, grain exports from Argentina, and any change in the profitability of the domestic livestock industry will influence prices for the rest of the year.

Reflecting much lower production, the 1980/81 U.S. supply of grain sorghum, nearly 19 million tons (735 million bushels), dropped a fourth from 1979/80. Total use, estimated at 16 million tons (611 million bushels), is a fourth below last season, because feed use and exports are lower. Ending stocks for 1980/81 are estimated around 3 million tons (124 million bushels), 16 percent below the start of the year and the smallest carryover since 1976/77. Because of the tighter supply, farm prices of grain sorghum will likely average around \$3.05 a bushel, compared with \$2.34 last season.

Early season projections of potential increases in both harvested area and average yields this year point to a U.S. feed grain output for 1981/82 that will be well above 1980's drought-reduced level of 198 million tons. If

yields follow the trend, total feed grain production would be around 231 (\pm 21) million tons for next season. But, with a smaller carryin, expected supplies would be only 11 million higher than 1980/81. Next season's total use of feed grains may increase slightly, mainly reflecting increased domestic use. But, total use may fall short of production, causing a buildup in next season's carryover. However, weather conditions and other events could substantially alter 1981 production and expected use.

With increased supplies and only a modest rise in use, feed grain prices will probably decline slightly in 1981/82. However, even with these lower prices, the per acre farm value of feed grains, particularly corn and sorghum, would exceed the value of 1980's below-trend yields.

Most of the expected increase in 1981 feed grain production will be corn. Planted acreage of corn is likely to be about 85 million, 1 million more than indicated in March. The soybean-to-corn price ratio continues to favor corn, and soil moisture has improved since March. Thus, assuming normal abandonment and a trend yield of 103 bushels an acre, corn production would be around 196 million tons (7.73 billion bushels), 16 percent above 1980. Little change in disappearance is likely because of weak feed demand and potentially higher production of foreign coarse grains. Therefore, next season's ending stocks of corn could be sharply larger—around 28 million tons (1.1 billion bushels). In response, corn prices could fall from the 1980/81 average of \$3.20 a bushel, likely ranging from \$2.75 to \$3.35.

World coarse grain production in 1981/82 will likely range from 752 to 802 million tons, up from 725 million tons in 1980/81. The U.S. and Soviet crops are likely to climb well above this season. Larger crops are also

expected in Canada and Eastern Europe. However, dry conditions have reduced crop prospects in parts of Western Europe, while output in China and India may only be slightly above last season. Total foreign coarse grain production is forecasted to range from 526 to 564 million tons, compared with 527 million for 1980/81.

World consumption in 1981/82 may rise 1 to 3 percent, mainly reflecting the larger world crop that is expected. Most of the increase will likely occur in the Soviet Union, where production is forecast to climb sharply from that of the last 2 years. The larger world crop will likely exceed consumption, causing the first stock buildup since 1978/79. World trade in 1981/82 will probably expand, as the Soviets increase imports to replenish stocks and boost livestock production, and developing nations continue to import more to meet domestic needs. Larger export supplies in foreign exporting countries, particularly Argentina and South Africa, point to U.S. export levels that may be the same as in 1980/81.

Soybean meal prices are well above a year ago and, for the year, are likely to average 20 percent higher. Responding to rising prices for soybean meal, U.S. livestock producers cut soybean meal use. During October-March, domestic disappearance of soybean meal was down 9 percent from a year earlier.

Hay prices have remained strong all season. The mid-April price for all hay was \$73 a ton, compared with \$60 a year earlier. In March, hay producers said they would increase acreage by almost 3 percent in 1981. Although hay acreage is expected to expand, timely rains will be necessary to help buildup stocks. Stock rebuilding is imperative, because the past year's stocks were depleted by last summer's drought.

SITUATION AND OUTLOOK FOR FEED GRAINS

Corn

Corn Stocks Higher Than Expected

Corn stocks on April 1, 1981 totaled 3,995 million bushels, down almost 18 percent from last year, but still higher than earlier rates of disappearance would have indicated. Disappearance during January-March 1981 totaled 1,863 million bushels, down more than 8 percent from the same quarter a year ago. While exports of corn remained strong (633 million bushels versus 582 million in 1980) feed use dropped nearly a fifth from the same quarter last year.

Several factors have contributed to the decline in feed use, including higher corn prices and lower-than-expected returns to livestock and poultry producers. The 14-State March 1 inventory for hogs and pigs was down 9 percent from the same time last year. Hogs kept for breeding were down 11 percent and hog producers indicated they intended to reduce farrowings almost 10 percent during March-May.

The April 1 *Cattle on Feed* report indicated that the number of cattle on feed in the 23 large feeding States was down 4 percent from the same time last year and 12 percent from January 1, 1981. In addition to the lower number of animals, feed conversion improved during January-March due to the mild winter. All of these factors have combined to reduce the season estimate of corn feed use to 4,100 million bushels, down nearly 10 percent from a year ago.

Use At High Levels, Carryover Stocks to Fall

Corn use during 1980/81 is estimated to be 7,400 million bushels, about 200 million below 1979/80's record. Exports of corn should total 2,550 million bushels, up nearly 5 percent from 1979/80. Through early May, exports were 1,586 million bushels, compared with 1,489 million the same time last year. With the ending of the partial grain embargo to the Soviet Union, the possibility remains of additional sales of corn in the current agreement year ending September 30.

Use of corn for food, seed, and industrial purposes continues to increase. The current estimate for these uses is 750 million bushels. The majority of this corn goes into wet milling operations which this season should use about 490 million bushels. An additional 60 million bushels likely will go into fuel alcohol production. The current estimate of corn use for all these purposes is over a tenth higher than last year and should continue to grow as demand for the many corn-based products continues strong.

Ending stocks are likely to fall to 866 million bushels, the smallest carryover since 1975/76. Reserve stocks will

be depleted and CCC inventory will likely total 240 million bushels, leaving 626 million bushels as free stocks.

Outlook for Prices

Corn prices at the farm averaged around \$3.15 over the first 7 months of the crop year. Approximately two-thirds of the crop is marketed during this period. While exports and food, seed, and industrial demand remain strong, weakening feed demand may put some downward pressure on prices. Mid-April farm prices averaged \$3.20 per bushel compared with \$2.36 last April. Chicago cash prices were \$3.46 in mid-May compared with \$2.73 in 1980.

The outlook for corn prices over the rest of the season will depend on new crop prospects, export prospects in light of larger Southern Hemisphere harvests, and profitability in livestock and poultry feeding. Ending stocks of corn, while somewhat higher than expected earlier, are still only 12 percent of use or about 6 weeks' supply. Any additional purchase and delivery contracts of corn by the Soviet Union prior to this year's harvest could also strengthen prices.

On the other hand, several developments could lead to somewhat lower prices. Among these are the Southern Hemisphere feed grain crops now being harvested in Argentina and South Africa. The Argentine crop consists of mostly corn and sorghum and is expected to be nearly twice as large as last year's poor crop. Among Argentina's large customers are the Soviet Union, Japan, and Mexico. Additionally, Argentina recently devalued its currency, making its grain even more competitive in world trade.

Another factor weighing on prices is the decline in domestic feeding. Should animal numbers decline further, the amount of corn fed would also decline leading to somewhat lower prices. The current estimate of the 1980/81 season average price is \$3.20, compared with \$2.52 in 1979/80.

Loan and Target Prices Raised

Loan rates and target prices for the 1981 corn crop were recently raised reflecting higher costs of production. The regular loan rate on corn is \$2.40 per bushel while the target price is also \$2.40 per bushel. Corn entered into the farmer-owned reserve is eligible for a higher loan rate of \$2.55. The provisions of the 1981 crop reserve program have not yet been announced.

Reserve corn remains in call status with loans accruing interest of 15.25 percent after April 15. There is no time limit on the pay back period. As of May 6 there were 439 million bushels of corn in the reserve. The Commodity Credit Corporation owns 240 million bushels. Of this amount, about 150 million bushels were acquired to

offset the impact of the Soviet embargo. The CCC inventory can only be sold at a minimum of \$3.42 per bushel.

Plantings Up Some From Last Year

Corn producers were surveyed on March 1 to determine their 1981 planting intentions. They indicated they would seed 84 million acres, about the same as last year's 84.1 million. Leading the decrease were Kansas, Missouri, and Nebraska. These States were all drought-stricken last year. It is expected that some of this corn acreage will go into double-cropped winter wheat and soybeans.

Producers in several States indicated they were going to increase corn plantings. These included Iowa, Michigan, Minnesota and Ohio. These latter States had good yields last year and are indicating good soil moisture to date.

With the combination of the corn-soybean price ratio favoring corn and soil moisture improving since March, the current planted acreage estimate is 85 million acres, slightly above planting intentions.

Outlook for 1981/82

With the expectation of normal abandonment and a trend yield, corn production in 1981 is projected to be about 7,725 million bushels (\pm 775), significantly above the 1980 level.

Corn disappearance is projected to be slightly higher than the current crop year. Domestic feed use and exports are expected to remain at about the same level as in 1980/81, while use of corn for sweeteners and in gasahol production will likely increase.

Thus, carryover stocks are projected to increase from the estimated 866 bushels for the current crop year. This would place downward pressure on prices with 1981/82 farm prices projected to range from \$2.75 to \$3.35 per bushel.

Sorghum

Prices at Record Levels; Exports Lag Last Year

Prices of sorghum at the farm averaged \$2.92 per bushel (\$5.21 per cwt.) in mid-April, compared with \$2.22 per bushel last April and a season high of \$3.08 in December. Kansas City cash prices in April were \$3.07 per bushel compared with \$2.29 in 1980. Prices for sorghum remain much higher than last year and are now expected to average around \$3.05 per bushel over the 1980/81 season. Recent price weakness is due to declining livestock feeding and lagging export demand.

Exports of sorghum between October and March totaled 150 million bushels, compared with 183 million last year at the same time. Exports are now expected to total 250 million bushels, compared with 325 million last year, a decline of 23 percent.

April 1 Stocks Larger Than Expected; Feed Use Declines

Use of sorghum for all purposes is expected to total 611 million bushels this season, down a fourth from last year. A major decline is expected in feed use. Sorghum in all storage positions on April 1, 1981 totaled 313 million bushels, 21 percent less than a year earlier. Disappearance during January-March totaled only 154 million bushels, 39 percent less than the same period last year. Feed use dropped to nearly half the level of 1980. Contributing to this drop were lower cattle on feed numbers and better feed conversion rates due to the mild winter. Feed use of sorghum is now projected to total 350 million bushels, down nearly 30 percent from last year's 484 million bushels.

Ending stocks for 1980/81 are estimated at 124 million bushels, the smallest ending carryover since 1976/77. Reserve stocks will be depleted and CCC inventory will likely total 44 million bushels, leaving 80 million bushels as free stocks.

Sorghum Plantings to Decline

In spite of higher prices than a year ago, sorghum producers on March 1 indicated they intend to plant 15.7 million acres, 1 percent below 1980. Acreage declines are expected in Kansas, Oklahoma, and Texas, the biggest producing State. These States were hard hit by last season's drought and shifted acreage into winter wheat. Acreage increases were shown for Missouri and Nebraska.

Loan and Target Prices Raised

Loan rates and target prices for 1981-crop sorghum were recently raised reflecting higher costs of production. The regular loan rate is now \$2.28 per bushel while sorghum entered into the reserve will be eligible for a loan rate of \$2.42 per bushel. The 1981 target price of sorghum is \$2.55 per bushel, 5 cents above the 1980 level.

Outlook for 1981/82

With the sorghum yield in 1981 expected to recover from last year's sharply reduced level, production is projected to be about 735 million bushels (\pm 75), significantly above the 1980 level.

Sorghum disappearance is projected at around 700 million bushels, significantly above the 1980/81 level. Feed use is projected to increase because of the likely larger supplies and expected increase in numbers of cattle on feed. Exports may be up slightly from the estimated 250 million bushels for 1980/81.

Thus, carryover stocks are projected to increase about 35 million bushels from 1980/81. This should place downward pressure on prices, projected to range from \$2.60 to \$3.20 per bushel.

Barley

Acreage may be Much Higher; Prices Remain Strong

On March 1, barley producers indicated they would plant nearly 10 percent more acreage in 1981. Planted acreage is estimated at just over 9 million acres, a sharp increase from the 8.3 million last season. States indicating more acreage include Idaho, Oregon, North Dakota, and Washington.

Part of the increase in prospective plantings can be attributed to higher prices. Prices for No. 3 or better malting barley averaged \$3.84 per bushel in April in the Minneapolis market, compared with \$2.73 per bushel last year at the same time. Feed barley prices averaged \$2.51 per bushel, compared with \$2.12 last year. Prices on the West Coast have been much stronger. Feed barley prices in Portland averaged \$3.48 per bushel, compared with \$2.63 last year.

Barley in the farmer-owned reserve was removed from release status on May 7. Farm prices had fallen below the \$2.44 per bushel release price. As of May 6 there were about 12.2 million bushels in the reserve. Season average prices are expected to average \$2.80 per bushel, a new record.

Barley Exports Continue Strong; Ending Stocks to Decline

Exports of barley continue at a pace sharply above a year ago. Exports through March totaled 69 million bushels, compared with 43 million the same period last year. Among the major importers this year have been Italy, East Germany, Taiwan, and Japan. Exports for the year are expected to total 75 million bushels, the highest since 1973/74.

Offsetting the strong export outlook has been the weakening domestic feed market. Lower animal numbers and better conversion rates have led to a decline in the amount of barley fed. April 1 stocks of barley in all positions were 202 million bushels, 23 percent less than last year's 262 million. Barley feeding is projected at 165 million bushels, down nearly 20 percent from last year. Ending stocks are projected to be 149 million bushels or 36 percent of total utilization. This is 22 percent less than last year. Possibly 15 million bushels will be in reserve and 3 million owned by the CCC, leaving the major portion as free stocks.

Loan and Target Prices Increased

Loan rates for the 1981 barley crop were recently raised to \$1.95 per bushel. Barley entered into the farmer-owned reserve will be eligible for a loan of \$2.07 per bushel. In response to rising costs of production, the target price of barley has been raised to \$2.60 per bushel.

Outlook for 1981/82

With trend yields, barley production in 1981 is projected to be 574 million bushels (± 40), slightly above 1980

level.

Barley disappearance is projected at 405 million bushels, down slightly from the 1980/81 level. Feed and residual at 170 million bushels and feed, seed, and industry at 175 million bushels are slightly above current levels. Exports are projected to fall off to about 60 million bushels.

Thus, carryover levels are projected at 169 million, 20 million bushels above the current crop year. This should place downward pressure on prices, projected to range from \$2.35 to \$2.85 per bushel.

Oats

Prospective Plantings Up; Prices Still Strong

On March 1, oat producers indicated they intend to plant 13.5 million acres, an increase of just over 1 percent from last year. Higher acreages were indicated in North Dakota, South Dakota, and Texas. Lower acreages were seen in Wisconsin and Iowa.

Prices for oats have remained strong all season. April prices for No. 2 heavy oats in Minneapolis averaged \$2.21 per bushel, compared with \$1.52 last year. Mid-April farm prices were \$2.04 per bushel. Season average farm prices are now expected to average a record \$1.80 per bushel, compared with 1.36 in 1979/80 and the previous record of \$1.56 in 1976/77.

April 1 Stocks Lower; Loan Rate Raised

The April 1 stocks of oats were 256 million bushels, 25 percent less than a year earlier. Disappearance of oats during January-March was 132 million bushels, down about 2 percent from the same quarter last year. Ending stocks for 1980/81 are estimated at 161 million bushels, nearly a third below 1979/80, and all as free stocks. Currently, there are around 700 thousand bushels of oats in the farmer-owned reserve and about 1 million bushels are owned by the CCC.

Regular loans for the 1981 crop are \$1.24 per bushel, while oats entering the reserve are eligible for a rate of \$1.31 per bushel. There is no target price for oats.

Outlook for 1981/82

Oats production in 1981 may be up significantly from the 1980 level with normal abandonment of planted acreage. The drought last summer sharply reduced the area harvested.

Oats disappearance is projected to decline slightly from the 1980/81 level of 525 million bushels. Feed and residual use are projected to decrease 15 million from the current level, while other uses remain unchanged.

Thus, carryover levels are projected at about 155 million bushels, modestly below the current crop year. However, the overall decrease in demand for feed grains results in a lower projected farm price of \$1.50 to \$1.80 per bushel.

Hay

Acreage May Be Up; Prices Strong

Hay producers indicated they would increase acreage by almost 3 percent in 1981. This partly reflects the high prices of hay this season. Major acreage increases were shown for Texas, South Dakota, North Dakota, and Montana. Less acreage may be harvested in Iowa, Ohio, and Wisconsin.

Hay prices have remained strong all season. The mid-April price of all hay was \$72.70 per ton while alfalfa was \$75.90 per ton. This compares with \$60.10 in April 1980. Prices are highest in the Southwest where Texas alfalfa hay is \$116 per ton and Oklahoma alfalfa \$97.50 per ton. Prices are much lower in the upper Midwest where Wisconsin alfalfa is \$46 per ton and Michigan alfalfa \$40 per ton. These States were not hit by drought in 1980.

DOMESTIC FEED SITUATION

Feed Grain Consumption Declines

With more than half of the current feeding year gone, major feed demand indicators point to continued reductions in feed consumption for the remaining months of 1980/81. Feed grain consumption during the October-March period, at 77 million metric tons, was down slightly more than 4 percent from the like period of a year ago. Overall, the decline in feed grain consumption for 1980/81 is expected to be 11 percent below 1979/80 levels.

Major contributors to declining feed demand are the fed cattle and hog sectors which are expected to use 64 million metric tons of feed grains during 1980/81, compared with 76 million last year, a 16 percent difference. Another factor that could have contributed to reduced concentrate feed consumption was the generally mild temperatures and dry weather conditions over most of the country during the first half of the 1980/81 feeding year. Less feed concentrates per unit of production are associated with reduced weather-induced animal stress. Greater reliance on harvested roughage—hay and silage—was encouraged as sufficient nearby supplies offered cattle, dairy, and lamb producers a chance to cut feed costs. This has also contributed to reduced feed concentrate needs since last October.

The 1980/81 ratio of feed grains to a grain-consuming animal unit (GCAU) is indicative of the shift to roughage feeds and better conversions. The estimated 1980/81 rate is 1.52 metric tons per unit compared with 1.69 tons for 1979/80 and 1.75 tons for 1978/79. Ratios of feed grains per GCAU's from cattle on feed for 1980/81 and the 2 previous years are 1.30, 1.53, and 1.72 tons, respectively. Ratios from hogs for the same years averaged 1.80, 1.96, and 1.99 tons per unit. Producers' feeding options for fed cattle are considerably greater than for hog producers which are reflected in the wider ratios per GCAU. With milk cows, the annual ratios move in a fairly narrow range and are more influenced by feed grain byproduct substitutes. For instance, during the past 2 years the ratios of GCAU from milk cows to total concentrate feed consumption have remained practically unchanged while the feed grain ratios have ranged from 1.70 for 1980/81 to last year's 3-year high of 1.87 metric tons.

Number of cattle on feed for slaughter continued to tighten during January-March and on April 1, totaled

9.76 million head in the 23 major feeding States. This was down 4 percent from April 1980 and 12 percent from 1979, and was the lowest April inventory in 6 years. Steers weighing 700 to 1,100 pounds were down 10 percent from January 1, 1980 numbers, but only 1 percent below levels for the same period of a year ago. Total steers on feed, at 6.6 million, compared with 7.5 million in January, were nearly 4 percent below April 1980, while heifer numbers slipped nearly 12 percent from January, but were off only 6 percent from April 1 of a year ago.

Placements reflect the sharp downturn in fed cattle activity with October-December 1980 placements below the same period in 1979 by about 10 percent. The January-March 1981 placements are also under 1980 numbers, but by only 1 percent. With current placements beginning to pick up, total placements for 1980/81 may about match 1979/80 levels.

Hog production will continue to slow for the balance of this year due to continued poor feeding margins. Producers selling market hogs for \$41 per cwt. see little incentive for increasing production without some relief from lower feed costs or higher market prices. With mid-April farm corn prices at \$3.20 per bushel, and soybean meal prices at \$239 per ton, most hog producers need market prices averaging \$34 per hundred to cover feed costs plus \$11 per hundred liveweight to cover other direct costs. These negative margins will not show much improvement until hog marketings are significantly reduced or feed costs are much lower.

Roughage Feed Situation

Increased quantities of roughage have been fed to offset reduced grain feeding. Current estimates indicate roughage-consuming animal units (RCAU's) in 1980/81 at 90.6 million, up 4 percent from 1979/80 with units from other beef cattle accounting for practically all of this increase. After a dry and relatively mild winter, pastures by the end of April were judged generally fair to good except in parts of the Southwest and the Northern Plains where dry conditions persisted.

High-Protein Feeds

With the sharp decline in feed grain use by hogs during 1980/81, a similar, but less sharp decline, can be

anticipated for high-protein feed consumption. The anticipated increase in poultry feed consumption would account for this smaller decline because poultry feeds contain significantly higher protein levels. At the present time, high-protein consuming animal units are

expected to be 114.3 million units for 1980/81 compared with 114.6 for 1979/80. Available supplies per unit are expected to average 459 pounds during 1980/81, compared with a record high of 476 pounds for 1979/80.

WORLD GRAIN SITUATION

World Coarse Grain Production Down

World coarse grain production for 1980/81 is now estimated at almost 725 million tons, down 2 percent from last year's 740 million tons. The largest production increase is occurring in Argentina which is now harvesting a crop of over 21 million tons, up sharply from last year's 10.6 million tons. A major increase is also expected in the South African crop which is now projected at 15.1 million tons versus last year's crop of 11.7 million. The Soviet Union's coarse grain crop of 80.7 million tons was about the same as the 1979/80 crop. The Western European crop was a record 94.7 million tons.

World Grain Trade To Increase

World trade in coarse grains in 1980/81 will be higher than in 1979/80. While the United States has a market share of 70 percent of coarse grain exports, other exporters are slowly increasing their share. Argentina will be an active exporter of corn and sorghum. Exports are now projected at 9.1 million tons most of which will be to the Soviet Union. Argentine exports represent nearly 9 percent of the export market. Because of its large export availabilities, Argentina will be able to supply some of its traditional customers, like Mexico.

South Africa should also become a more active exporter this season. The large crop will allow South Africa to maintain over 3 percent of the world trade in coarse grains. South African exports will be constrained somewhat by the physical limitations of the country's export capacity.

Major Coarse Grain Producers¹

Country	Year Beginning October		
	1979 ²	1980 ³	1981 ⁴
<i>Million metric tons</i>			
U.S.	238.7	198.7	231.9 ± 21.0
USSR	81.1	80.7	97.0 ± 10.0
			-15.0
Western Europe	90.7	94.7	92.3 ± 5.0
China	83.0	82.5	83.0 ± 3.0
Eastern Europe	63.3	61.7	64.2 ± 1.5
Canada	18.6	21.6	23.8 ± 2.0
Argentina	10.6	21.3	18.7 ± 3.5
South Africa	11.7	15.1	12.2 ± 2.5
Australia	6.3	5.2	6.1 ± 1.0
Thailand	3.6	3.5	3.8 ± 0.5
Other	132.3	140.3	143.6 ± 3.0
Total	739.9	725.3	776.6 ± 25.0

¹Coarse grains are corn, oats, sorghum, barley, rye, millet, and mixed grains. ²Preliminary. ³Estimated as of May 13, 1981. ⁴1981/82 is projected based on surveys, trends, and analysts' judgement.

Imports of coarse grains will increase in Mexico, Brazil, and a number of developing countries. Imports by Western Europe and the Soviet Union should decline somewhat from last year. Ending stocks for the world should total 71 million metric tons, down sharply from last year's 89 million tons. The decline is due primarily to the drawdown in U.S. coarse grain stocks.

Outlook for 1981/82

World coarse grain production in 1981/82 is projected to be 777 million metric tons, a increase of 7 percent from the 1980/81 crop. The crop could range from 752 to 802 million tons. The largest increases are expected to occur in the Soviet Union and the United States with smaller increases likely in Canada, Eastern Europe, and Australia. South Africa and Argentina's production may fall from the record levels of this year, while dry conditions have reduced prospects in Western Europe.

World trade is projected to increase about 4 percent. The U.S. market share is projected to decline because of larger exporter's supplies in foreign exporting countries, particularly Argentina and South Africa. Western Europe exports are projected to decrease.

Imports of coarse grains are projected to increase primarily in the Soviet Union and a number of smaller developing countries. Imports by Western and Eastern Europe should decline somewhat from 1980/81.

Major Coarse Grain Exporters and Importers¹

Item	Year Beginning July		
	1979 ²	1980 ³	1981 ⁴
<i>Million metric tons</i>			
Major Exporters:			
U.S.	71.6	73.0	73.0 ± 6.0
Argentina	6.6	9.2	13.5 ± 2.0
Western Europe	5.6	6.8	5.5 ± 0.5
Canada	4.8	4.3	4.9 ± 0.5
South Africa	2.9	3.7	4.9 ± 0.5
Australia	4.1	2.4	2.6 ± 0.5
Thailand	2.3	2.3	2.4 ± 0.5
Other	2.8	2.5	3.3 ± 0.5
Total	100.7	104.2	110.1 ± 6.0
Major Importers:			
Western Europe	24.0	22.8	23.8 ± 1.0
Japan	18.9	19.0	19.2 ± 0.5
Eastern Europe	11.3	10.7	10.0 ± 1.0
USSR	18.4	17.0	20.0 ± 4.0
China	2.0	1.0	1.0 ± 1.0
Other	26.1	33.7	36.1 ± 2.0
Total	100.7	104.2	110.1 ± 6.0

¹Coarse grains are corn, oats, sorghum, barley, rye, millet, and mixed grains. ²Preliminary. ³Estimated as of May 13, 1981. ⁴Projected.

FOOD, SEED, AND INDUSTRIAL USES OF FEED GRAINS

Walter Spilka, Jr.
Agricultural Economist
National Economics Division, ESS
Crops Branch

ABSTRACT: A record of the food, seed, and industrial uses of feed grains (corn, sorghum, barley and oats) is provided along with an analysis of the potential for growth in use. Results indicated that strong growth is occurring in corn wet milling and fuel alcohol production. Declines have been seen in certain products, like cornmeal.

KEYWORDS: Corn, sorghum, barley, oats, wet milling, fuel alcohol, malt.

FOOD, SEED, AND INDUSTRIAL USES OF FEED GRAINS

Walter Spilka, Jr.

Food, seed, and industrial uses are the third source of feed grain disappearance after feed and exports. Recent work at ESS has focused on the use of these grains among the grain consuming industries. This research continues work done previously, the results of which were last published in the May 1979 Feed Situation (FdS-273).

The current research effort has focused on determining the use of the basic grains by specific groups of industries. Since the grains are usually used as a raw material to make a product that in turn is used to produce other products, it is necessary to avoid the potential double counting problem. This can occur when grain products are converted back to a raw material basis and then totaled to determine an industry's use of the grain.

The main problem encountered in this research is a lack of consistent data. Three sources were used in this analysis:

- (1) 4n Census of Manufacturers data for 1972 and 1977.
- (2) Annual reports of the Bureau of Alcohol Tobacco and Firearms (BAFT).
- (3) Judgment of ESS economists and analysts as well as grain industry analysts.

Since there is a lack of basic data, most of the results are determined by extrapolation based on growth rates between 1972 and 1977 as found in the Census of Manufacturers data. In some instances the BATF data are used to determine grain use. In other cases, the judgment

of analyst is used when there was either a lack of data or the data did not appear consistent.

Grain Industries

For this analysis, seven basic industries are defined. The definitions follow The Census of Manufacturers industry definitions in most cases.

- (1) 4n Wet Corn Milling - those establishments primarily engaged in milling corn by the wet process. The primary product is starch for food and industrial uses and for conversion to dextrose, glucose syrups, and high fructose corn syrups (HFCS). Byproducts of the wet mill process include corn oil, gluten feed, and gluten meal.
- (2) Flour and Grain Mill Products - those establishments primarily engaged in milling flour and meal from grain. Also includes industries engaged in the manufacture of cereal breakfast foods and related products. Included also is the dog, cat, and pet food industry which produces these foods from cereals, meat, and other ingredients.
- (3) Malt - those establishments engaged in manufacturing malt or malt byproducts.
- (4) Malt Beverage - those establishments engaged in manufacturing malt beverages such as beer and ale.
- (5) Distilled Liquor - those establishments engaged in manufacturing alcoholic liquors, cordials, and cocktails, such as whiskey, rum, gin, and vodka.
- (6) Seed - those enterprises that use the grains for seedling purposes.

(7)Fuel Alcohol - those establishments that produce fuel alcohol by either the wet mill or dry mill process.

Results

The results of the analysis are shown in the following tables. If grain consumed did not total over 1 million bushels, the industry is not listed.

The results showed several trends in feed grain use. The most noticeable is wet milling of corn. An analysis of the industry's product shipments indicates that production of high fructose corn syrups is growing very rapidly. Growth of the other wet mill products such as starch and glucose syrup grew slowly, possibly because they were being replaced by HFCS. Growth in this industry is expected to continue.

Use of corn in the grain and flour mill industries has been fairly stable. Certain products such as corn meal have experienced a long steady decline due to changing consumer tastes. Production of corn grits and hominy has increased. Use of corn in pet foods has also shown a steady increase. It is expected this industry will continue to grow in the future.

Corn use in the malt beverage and distilled liquor

industry was fairly constant and will probably remain that way. Corn finds large use in the production of bourbon whisky, which is declining in use.

Use of corn for fuel alcohol was first done on a large scale in 1979. Growth has been rapid since then. Currently, the future of the fuel alcohol industry is somewhat clouded by stabilizing gasoline prices, rising corn prices, and uncertainty over continued Government subsidization of the industry.

Sorghum food, seed, and industrial uses have been small. Some sorghum was wet milled until 1978 but none has been in recent years. Small amounts of sorghum are now used in fuel alcohol production.

Barley's major use is in the malt industry where it is processed into malt for use in the malt beverage industry. This use has been growing with the increase in beer consumption. This upward trend is expected to continue.

Oats are used primarily for production of breakfast cereals. Use for this purpose has been steady and should remain that way.

Further details of this research will be provided in the ESS Staff Report "Food, Seed, and Industrial Uses of Feed Grains". This report should be available this summer.

Estimated food, seed, and industrial uses of feed grains, 1977-80

Item	1977/78	1978/79	1979/80	1980/81
<u>Million bushels</u>				
<u>CORN</u>				
Wet Corn Milling	398	425	455	487
Flour and Grain Mills	121	124	127	131
Malt Beverage	30	30	31	31
Distilled Liquor	21	21	20	20
Seed	20	20	20	21
Fuel Alcohol	0	0	22	60
TOTAL	590	620	675	750
<u>SORGHUM</u>				
Flour and Grain Mills	6	6	6	6
Distilled Liquor	4	3	5	3
Seed	2	2	2	2
TOTAL	12	11	13	11
<u>BARLEY</u>				
Flour and Grain Mills	6	6	7	7
Malt	130	144	148	149
Distilled Liquor	3	3	3	3
Seed	17	14	14	13
TOTAL	156	167	172	172
<u>OATS</u>				
Flour and Grain Mills	42	41	41	41
Seed	42	36	35	33
TOTAL	84	77	76	74

Source: Census of Manufacturers, Bureau of Alcohol Firearms and Tobacco, and ESS estimates.

BEHAVIOR OF THE CORN BASIS

Janet Livezey
Agricultural Economist
National Economics Division, ESS
Crops Branch

ABSTRACT: Corn basis charts are displayed for Omaha, St. Louis, Chicago, and the United States. Behavior of the corn basis is discussed for the period 1978-1981. The outlook for May, June, and July is included.

KEYWORDS: Corn, corn basis charts, regional corn basis charts, corn basis behavior.

A knowledge of local basis is useful for understanding local cash price changes relative to futures prices. Whereas the futures market price quotation accounts for the overall supply-demand balance for a commodity, the local basis reflects local market factors which, at any given time, help determine the local price that farmers receive.

Basis is defined as the number of cents per bushel that the local cash price of a commodity differs from the current price for a particular futures delivery month. The local basis may be divided into two components. The first is the amount by which the local cash price differs from the cash price at the futures delivery point. It usually is lower, but by no more than transportation costs. The second component is the amount by which the cash price at the delivery point differs from the current futures price. It usually is below the futures price and reflects the cost of carrying the commodity to the futures delivery month.

Historically, Chicago developed as the major futures delivery point because of its great accumulation of grains. Chicago, however, is no longer the physical focal point of the agricultural marketing system. For example, more grain is now exported through the Gulf of Mexico than through the Great Lakes. Also, feedlot and slaughter activities are located closer to the points of production. Thus, position of the local market in relation to the areas of strongest demand will affect the local basis. Other factors which affect basis include the supply of and demand for storage, farmers' willingness to sell, and transportation difficulties.

Although basis patterns will vary as adjustments are made to local supply and demand conditions, a somewhat stable and predictable pattern usually develops. For example, for corn, the July basis (difference between current local cash price and current price for July futures) typically reaches its widest point during the peak of harvest season and gradually narrows as July approaches by the reduction in the carrying cost. If prices were higher in the futures market than in the cash market, or vice versa, traders would buy or take delivery in the low-priced market and sell or make delivery in the high-priced market, thereby minimizing any excessive price difference.

The corn basis charts pictured here show basis behavior over the past 3 years for Omaha, St. Louis, and Chicago. For comparison, a monthly U.S. average farm basis chart is also included. As expected, it does not display the variation shown in the weekly regional charts. A description of basis behavior by crop year follows with regional variations noted.

1978-81 Basis Behavior

The 1978 corn crop was large and was harvested relatively fast. The July basis narrowed rapidly following harvest, reflecting large storage capacity and farmers' reluctance to sell. During the winter months the basis held steady due to transportation difficulties resulting from winter storms and frozen rivers. In March, the basis narrowed under pressure of heavy export sales and strong domestic feed demand. In April, however, high water on northern rivers and the closing of two locks on the Mississippi kept the basis from narrowing in the affected areas. Demand continued heavy into the summer months, but full pipelines and lack of adequate transportation facilities weakened some markets. Widespread rainfall over the Corn Belt contributed to a weakening of the basis as prospects for the 1979 crop improved and producer selling picked up. Regionally, the Chicago basis showed a consistent narrowing from March to July. However, both the St. Louis basis and the Omaha basis held steady most of this time as local factors hindered the movement of grain.

In 1979/80 the U.S. average farm basis widened greatly at harvest due to a large crop and carryover, high freight rates, and tight storage. Heavy export movement and farmer holding led to a strengthening of the basis in November (see St. Louis chart). The basis held steady or weakened in December under pressure of heavy selling and congestion at Gulf Ports. In January, the basis weakened further due to low export activity and decreased feed use, then widened extensively at the time of the Russian embargo. By early February the basis had narrowed again to its pre-embargo level. This recovery was due to several factors, which included—expanding sales to China and Mexico, tight holding by farmers, and additional incentives to put grain into the reserve. Also,

soft drink manufacturers announced their intentions to replace a larger quantity of sugar with corn sweeteners in their products. Basis movement was sluggish in late February as export demand and domestic needs declined. In March, the basis declined as the opening of pastures led to limited feed use. Other factors contributing to the weakness included large stocks, tight storage, high carrying cost, and lack of export business. From April through July, the basis generally narrowed because of Government buying and strong export and processor demand. A pickup in river shipments in April strengthened the basis in St. Louis and Omaha. Weather factors played a dominant role in basis behavior during June and July. Favorable weather in late May and June helped hold the basis steady. However, hot, dry weather in July, along with reports of drought damage in Canada and Mexico, led to a strengthening in the basis for that month in most areas.

The 1980/81 crop year exhibited two expansions of the basis early in the season. The first occurred in November following harvest, and the second occurred in early December when futures prices and cash prices fell dramatically. During the intervening period the basis remained weak. A major factor was record high interest rates, along with a strong U.S. dollar and weak gold and silver markets. Also, poor livestock feeding margins slowed domestic demand. In addition, export activity, which moved at record levels in October and November, fell off in early December. By mid-December export activity had picked up again and the basis narrowed considerably as local cash prices increased while July futures held steady. The basis widened again in early January after corn was called from the farmer-owned reserve, but remained weak through February due to slowed river traffic, reduced domestic and export demand, a strong U.S. currency market, and political unrest in Poland. Some strengthening in the basis has occurred since early March due to the resumption of barge traffic and reports of dry subsoil conditions in some parts of the Corn Belt.

Summer Basis Behavior

Theoretically, the July corn basis should narrow from May to July because of reduced storage costs. Over the

past 2 years the pattern in St. Louis and Chicago has been to widen in June and narrow in July. In Omaha and the United States the basis widened during May-July 1979 and narrowed during May-June in 1980. Factors that contributed to these variations from the expected included the amount of corn remaining in storage, export and domestic demand, and the pattern of farmer holding and marketing. Prospects for the crop coming on, mainly weather developments, also influenced the July basis.

A pattern of late marketing may explain why the basis has widened in some areas during June and July. From 1976 through 1979, June stocks as a percent of total supply increased by 10 percent. Since farmers generally do not carry large inventories of corn into harvest, summer marketings also increased. The impact, however, has been reduced by heavy export demand. In 1978 and 1979, more corn was exported in June than in any other month.

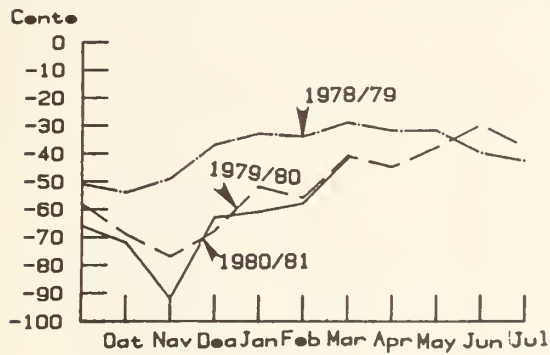
In 1980 the pattern of export movement changed. May, June, and July exports as a percent of total exports for the marketing year were down from previous years. However, the hot, dry weather caused prices to soar and the basis to narrow during the last part of July.

Domestically, less corn is used as feed during the summer than during the fall or winter, contributing to a widening of basis. Higher corn prices during the summer discourage corn feed use. In some areas, wheat feeding may replace corn feeding since wheat supplies are then at their seasonal peak.

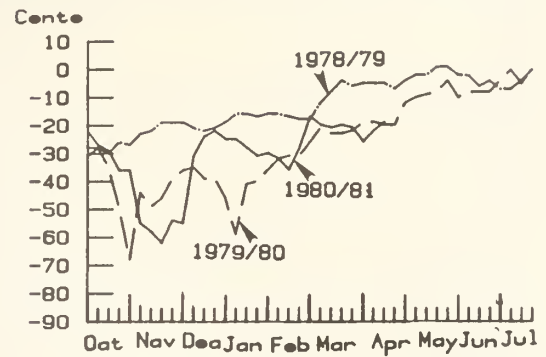
1981 Summer Basis Outlook

Behavior of the July basis over these next few months will be influenced by many factors. These include reaction to lifting of the partial sales restrictions to the Soviet Union, size of export and domestic demand, the placement of corn reserve stocks on the market, and weather developments. As of early May, removal of the sales restrictions appeared to have been discounted in the market. Factors contributing to a weakening of the basis include increased competition in the export market from Argentina's record corn crop and a decline in domestic feeding due to smaller numbers of animals on feed. Domestic feeding is not expected to increase over the summer, but an larger export demand could strengthen the basis.

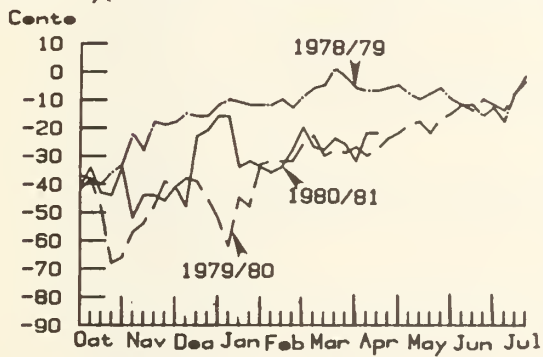
Monthly U.S. Corn Basis 1/



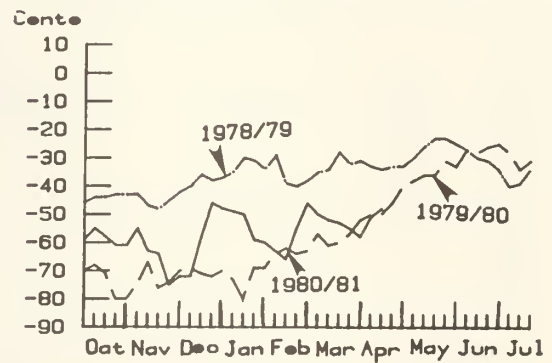
Weekly Chicago Corn Basis 2/



Weekly St. Louis Corn Basis 2/



Weekly Omaha Corn Basis 2/



1/ Difference between U.S. average Farm Price for all Corn and July futures.

2/ Difference between cash price for No. 2 Yellow Corn and July futures (Chicago).

Year beginning October 1	Supply				Disappearance				Ending stocks Sept. 30				
	Begin- ning stocks	Produc- tion	Imports	Total	Domestic use			Exports	Total disap- pearance	Govt. owned 2/	Pri- vately owned 3/	Total	
					Food	Alc. : bever- ages 1/	Seed and residual						
													Million bushels
1975/76	361.4	5,840.8	1.8	6,204.0	431.8	71.1	20.1	3,570.0	4,093.0	1,711.4	---	399.6	399.6
1976/77	399.6	6,289.2	2.5	6,691.3	456.0	73.9	20.1	3,571.3	4,121.3	1,684.1	---	885.9	885.9
1977/78	885.9	6,505.0	2.6	7,393.5	500.0	70.4	19.5	3,744.4	4,334.3	1,947.8	13.1	1,098.3	1,111.4
1978/79	1,111.4	7,267.9	1.2	8,380.5	531.2	69.3	19.5	4,323.5	4,943.5	2,133.1	7,076.6	99.7	1,204.2
1979/80	1,303.9	7,938.8	1.1	9,243.8	582.8	72.2	20.0	4,518.7	5,193.7	2,432.6	7,626.3	256.3	1,361.2
1980/81 4/	1,617.5	6,647.5	1.0	8,266.0	656.8	73.0	20.2	4,100.0	4,850.0	2,550.0	7,400.0	---	866.0
1981/82*	866.0	7,725.0 (± 775)	1.0	8,592.0 (± 775)	----- (± 35)	----- (± 35)	----- (± 35)	4,100.0 (± 350)	4,940.0 (± 365)	2,550.0 (± 200)	7,490.0 (± 500)	---	1,102.0 (+ 400)
Government support program													
National program	Set-aside and diverted	Area Planted	Harvested for grain	Yield per acre	Received by farmers 5/	Average prices			Government support program			Total payments to partici- pants	
						Chicago	Omaha	Gulf Ports	National average	Target price	loan rate		
----- Million acres ----- Bushels ----- Dollars per bushel ----- Mil. dol.													
1975/76	6/	---	78.7	67.6	86.4	2.54	2.75	2.66	2.91	1.10	1.38	8/ 90	8/ 90
1976/77	6/	---	84.6	71.5	88.0	2.15	2.30	2.15	2.50	1.50	1.57	8/ 181	8/ 181
1977/78	60.9	---	84.3	71.6	90.8	2.02	2.26	2.08	2.50	2.00	2.00	8/ 281	8/ 281
1978/79	76.2	6.1	81.7	71.9	101.0	2.25	2.54	2.28	2.81	2.00	2.10	9/ 683	9/ 683
1979/80	85.7	2.9	81.4	72.4	109.7	2.52	2.81	2.49	3.02	2.10	2.20	10/ 126	10/ 126
1980/81 4/	84.1	---	84.1	73.1	91.0	3.20	7/ 3.49	7/ 3.24	7/ 3.67	2.25	2.35	8/ 300	8/ 300
1981/82	---	---	85.0 (+ 2.0)	75.0 (+ 3.0)	103.0 (+ 10)	2.75-3.35	---	---	---	2.40	2.40	---	2.40

1/ Malt beverage and distilled liquor grain products converted to a corn basis. 2/ Uncommitted inventory. 3/ Includes quantity under loan and farmer-owned reserve. 4/ Estimated. 5/ Excludes support payments. 6/ Available for total feed grains only. 7/ Disaster payments. 8/ Deficiency, disaster, and diversion payments. 9/ Disaster and diversion payments. *Reflects CRB estimate of 'root mean square error' for production and comparable estimates of variability for other items. Chances are about 2 out of 3 the final outcome would fall within the ranges.

Table 3.--Sorghum: Marketing year supply, disappearance, area and prices, 1975-81

Year beginning October 1	Supply			Disappearance					Ending stocks Sept. 30				
	Begin- ning stocks	Produc- tion	Imports	Total	Domestic use			Exports	Total disap- pearance	Govt. owned 1/	Pri- vately owned 2/	Total	
					Food	Alc. bever- ages	Seed and residual:						
Million bushels													
1975/76	35.0	754.4	---	789.4	6.0	2.8	2.3	497.8	508.9	229.0	---	737.9	51.5
1976/77	51.5	710.8	---	762.3	6.0	2.9	2.0	414.3	425.2	246.1	---	671.3	91.0
1977/78	91.0	780.9	---	871.9	6.0	3.6	2.0	456.3	467.9	213.5	13.1	681.4	190.5
1978/79	190.5	731.3	---	921.8	6.0	3.2	1.8	544.7	555.7	206.6	43.6	762.3	159.5
1979/80	159.5	808.6	---	968.1	6.0	5.0	2.0	483.7	496.7	324.9	43.9	821.6	146.5
1980/81 3/	146.5	588.0	---	734.5	6.0	4.0	2.0	348.5	360.5	250.0		610.5	124.0
1981/82*	124.0	735.0 (+ 75)	---	859.0 (+ 75)	-----	(11.0)	-----	425.0	436.0 (+ 40)	265.0 (+ 35)		701.0 (+ 65)	158.0 (+ 45)
		Area		Yield		Average prices			Gulf Ports:		Government support program		
National program	Set-aside and diverted	Planted	Harvested for grain	per acre harvested	Received by farmers 4/	Kans.	City:	Texas	No. 2 Yellow	No. 2 Yellow	National average loan rate	Target price	Total payments to partici- pants
----- Million acres ----- Dollars per cwt. ----- Mil. dol.													
1975/76	5/	---	18.1	15.4	49.0	4.23	4.46	4.47	4.94	1.88	2.34	7/ 20	
1976/77	5/	---	18.1	14.5	49.1	3.62	3.49	3.64	4.11	2.55	2.66	8/ 34	
1977/78	16.4	---	16.6	13.8	56.6	3.25	3.54	3.88	4.16	3.39	4.07	8/ 168	
1978/79	13.7	1.4	16.2	13.4	54.5	3.59	4.00	4.40	4.65	3.39	4.07	9/ 243	
1979/80	15.9	1.2	15.3	12.9	62.7	4.18	4.65	4.97	5.54	3.57	4.18	9/ 99	
1980/81 3/	12.8	---	15.9	12.7	46.2	5.45	6/ 5.66	6/ 6.21	6/ 6.52	3.82	4.46	7/ 110	
1981/82			15.7 (+ .5)	12.9 (+ .7)	57.0 (+ 6)	4.64-5.71				4.07	4.55		

1/ Uncommitted inventory. 2/ Includes quantity under loan and farmer-owned reserve. 3/ Estimated. 4/ Excludes support payments. 5/ Available for total feed grains only. 6/ October 1980-April 1981 average. 7/ Disaster payments. 8/ Deficiency and disaster payments. 9/ Deficiency, disaster, and diversion payments. *Reflects CRB estimate of 'root mean square error' for production and comparable estimates of variability for other items. Chances are about 2 out of 3 the final outcome would fall within the ranges.

Table 5.--Oats: Marketing year supply, disappearance, area and prices, 1975-81

Year beginning June 1	Supply				Disappearance						Ending stocks May 31			
	Begin- ning stocks	Produc- tion	Imports	Total	Domestic use			Exports	Total disap- pearance	Govt. owned 1/	Pri- vately owned 2/	Total	Total	
					Food	Alc. bever- ages	Seed and residual:							
Million bushels														
1975/76	223.0	639.0	0.7	862.7	44.0	---	42.7	557.5	644.2	13.7	---	657.9	204.8	204.8
1976/77	204.8	540.4	1.4	746.6	42.4	---	45.9	484.4	572.7	9.6	---	582.3	164.3	164.3
1977/78	164.3	752.8	2.2	919.3	42.0	---	42.5	509.4	593.9	12.3	---	606.2	313.1	313.1
1978/79	313.1	581.7	0.7	895.5	41.0	---	36.1	525.7	602.8	12.7	2.7	615.5	277.3	280.0
1979/80	280.0	526.5	0.9	807.4	40.7	---	34.6	491.6	566.9	4.1	2.7	571.0	233.7	236.4
1980/81 3/	236.4	457.6	1.0	695.0	41.0	---	33.0	450.0	524.0	10.0	---	534.0	161.0	161.0
1981/82*	161.0	514.0 (± 50)	---	675.0 (± 50)	---	---	---	435.0 (± 30)	510.0 (± 30)	10.0 (± 5)	---	520.0 (± 30)	155.0 (+ 25)	155.0 (+ 25)
Average prices														
National program 4/	Set-aside and diverted 4/	Planted	Harvested for grain	Yield per harvested acre	Received by farmers 5/						Government support payment			
					Minneapolis		Portland		Chicago		National average loan rate	Target price partici- pants	Total	
					No. 2 White, heavy	No. 2 White, heavy	No. 2 White, heavy	No. 2 White, heavy	No. 2 White, heavy	No. 2 White, heavy				
Dollars per bushel														
1975/76	---	16.4	13.0	49.0	1.46	1.66	1.86	1.54	0.54	---	---	---	---	---
1976/77	---	16.6	11.8	45.7	1.56	1.74	1.80	1.71	0.72	---	---	---	---	---
1977/78	---	17.7	13.5	55.8	1.10	1.27	1.44	1.36	1.03	---	---	---	---	---
1978/79	---	16.4	11.1	52.3	1.20	1.43	1.79	1.37	1.03	---	---	---	---	---
1979/80	---	14.0	9.7	54.4	1.37	1.57	1.87	1.60	1.08	---	---	---	---	---
1980/81 3/	---	13.4	8.6	53.0	1.80	6/ 2.02	6/ 2.39	6/ 2.07	1.16	---	---	---	---	---
1981/82	---	13.5 (± .5)	9.7 (± .7)	53.0 (± 5)	1.50-1.80	---	---	---	1.24	---	---	---	---	---

1/ Uncommitted inventory. 2/ Includes quantity under loan and farmer-owned reserve. 3/ Estimated. 4/ Not included in the program. 5/ Excludes support payments. 6/ June 1980-April 1981 average. *Reflects CRB estimate of 'root mean square error' for production and comparable estimates of variability for other items. Chances are about 2 out of 3 the final outcome would fall within the ranges.

1/ Data may not add to totals due to independent rounding. 2/ Uncommitted inventory. 3/ Includes quantity under loan and farmer-owned reserve.
4/ Less than 50,000 metric tons. 5/ Estimated.

1/ Data may not add to totals due to independent rounding. 2/ Uncommitted inventory. 3/ Includes quantity under loan and farmer-owned reserve.
4/ Less than 50,000 metric tons. 5/ Estimated.

Table 7.--Corn: Marketing year supply and disappearance, specified periods, 1975-81 1/

Year and periods beginning October 1	Supply					Disappearance					Ending stocks			
	Begin- ning stocks	Produc- tion	Imports	Total	Food	Domestic use			Exports	Total disap- pearance	Govt. owned 3/	Privately owned 4/	Total	
						Alc. bever- ages 2/	Seed	Feed and residual						
Million bushels														
1975/76														
Oct.-Dec.	361.4	5,840.8	0.6	6,202.8	108.0	16.3	---	1,151.3	1,275.6	453.7	---	---	4,473.5	4,473.5
Jan.-Mar.	4,473.5	---	0.5	4,474.0	108.0	15.7	4.0	1,103.6	1,231.3	405.9	---	---	2,836.8	2,836.8
Apr.-May	2,836.8	---	0.1	2,836.9	73.4	14.2	12.1	549.0	648.7	319.4	---	---	1,868.8	1,868.8
June-Sept.	1,868.8	---	0.6	1,869.4	142.4	24.9	4.0	766.1	937.4	532.4	---	---	399.6	399.6
Mkt. year	361.4	5,840.8	1.8	6,204.0	431.8	71.1	20.1	3,570.0	4,093.0	1,711.4	---	---	399.6	399.6
1976/77														
Oct.-Dec.	399.6	6,289.2	0.6	6,689.4	109.4	15.4	---	1,164.6	1,289.4	498.0	---	---	4,902.0	4,902.0
Jan.-Mar.	4,902.0	---	0.3	4,902.3	104.9	18.2	4.0	1,074.7	1,201.8	399.5	---	---	3,301.0	3,301.0
Apr.-May	3,301.0	---	0.5	3,301.5	82.1	14.8	12.1	540.4	649.4	282.1	---	---	2,370.0	2,370.0
June-Sept.	2,370.0	---	1.1	2,371.1	159.6	25.5	4.0	791.6	980.7	504.5	---	---	885.9	885.9
Mkt. year	399.6	6,289.2	2.5	6,691.3	456.0	73.9	20.1	3,571.3	4,121.3	1,684.1	---	---	885.9	885.9
1977/78														
Oct.-Dec.	885.9	6,505.0	0.7	7,391.6	115.0	15.7	---	1,290.3	1,421.0	418.3	0.2	---	5,552.1	5,552.1
Jan.-Mar.	5,552.3	---	0.9	5,553.2	120.0	17.0	3.9	1,088.4	1,229.3	414.5	0.2	---	3,909.2	3,909.4
Apr.-May	3,909.4	---	0.3	3,909.7	85.0	13.4	11.7	568.3	678.4	370.2	0.2	---	2,860.9	2,861.1
June-Sept.	2,861.1	---	0.7	2,861.8	180.0	24.3	3.9	797.4	1,005.6	744.8	13.1	---	1,098.3	1,111.4
Mkt. year	885.9	6,505.0	2.6	7,393.5	500.0	70.4	19.5	3,744.4	4,334.3	1,947.8	13.1	---	1,098.3	1,111.4
1978/79														
Oct.-Dec.	1,111.4	7,267.9	0.1	8,379.4	132.8	17.1	---	1,456.4	1,606.3	454.0	77.3	---	6,241.8	6,319.1
Jan.-Mar.	6,319.1	---	0.4	6,319.5	116.9	16.9	3.9	1,255.1	1,392.8	426.3	98.8	---	4,401.6	4,500.4
Apr.-May	4,500.4	---	0.2	4,500.6	90.3	13.0	11.7	711.2	826.2	387.2	100.6	---	3,186.6	3,287.2
June-Sept.	3,287.2	---	0.5	3,287.7	191.2	22.3	3.9	900.8	1,118.2	865.6	99.7	---	1,204.2	1,303.9
Mkt. year	1,111.4	7,267.9	1.2	8,380.5	531.2	69.3	19.5	4,323.5	4,943.5	2,133.1	99.7	---	1,204.2	1,303.9
1979/80														
Oct.-Dec.	1,303.9	7,938.8	0.3	9,243.0	128.2	16.3	---	1,549.4	1,693.9	662.9	99.7	---	6,786.5	6,886.2
Jan.-Mar.	6,886.2	---	0.3	6,886.5	116.6	18.4	4.0	1,308.2	1,447.2	582.0	101.2	---	4,756.1	4,857.3
Apr.-May	4,857.3	---	0.1	4,857.4	93.2	13.9	12.0	682.3	801.4	385.6	180.5	---	3,489.9	3,670.4
June-Sept.	3,670.4	---	0.4	3,670.8	244.8	23.6	4.0	978.8	1,251.2	802.1	256.3	---	1,361.2	1,617.5
Mkt. year	1,303.9	7,938.8	1.1	9,243.8	582.8	72.2	20.0	4,518.7	5,193.7	2,432.6	256.3	---	1,361.2	1,617.5
1980/81 5/														
Oct.-Dec.	1,617.5	6,647.5	0.2	8,265.2	140.0	16.2	---	1,523.8	1,680.0	727.8	254.3	---	5,603.1	5,857.4
Jan.-Mar.	5,857.4	---	0.3	5,857.7	120.0	20.0	4.0	1,085.8	1,229.8	632.9	250.0	---	3,745.0	3,995.0
Apr.-May	---	---	---	---	---	---	---	---	---	---	---	---	---	---
June-Sept.	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Mkt. year	---	---	---	---	---	---	---	---	---	---	---	---	---	---

1/ Data may not add to totals due to independent rounding. 2/ Malt beverage and distilled liquor grain products converted to a corn basis. 3/ Un-
committed inventory. 4/ Includes quantity under loan and farmer-owned reserve. 5/ Estimated.

Table 8.--Sorghum: Marketing year supply and disappearance, specified periods, 1975-81 1/

Year and periods beginning October 1	Supply				Disappearance							Ending stocks			
	Beginning stocks	Production	Imports	Total	Food	Domestic use			Exports	Total disappearance	Govt. owned 2/	Privately owned 3/		Total	
						Alc. beverages	Seed	Feed and residual				Total	Total		Total
Million bushels															
1975/76															
Oct.-Dec.	35.0	754.4	---	789.4	1.5	0.7	---	249.7	251.9	63.4	315.3	---	474.1	474.1	
Jan.-Mar.	474.1	---	---	474.1	1.6	0.6	0.2	155.4	157.8	68.0	225.8	---	248.3	248.3	
Apr.-May	248.3	---	---	248.3	1.3	0.6	1.4	70.6	73.9	20.4	94.3	---	154.0	154.0	
June-Sept.	154.0	---	4/	154.0	1.6	0.9	0.7	22.1	25.3	77.2	102.5	---	51.5	51.5	
Mkt. year	35.0	754.4	4/	789.4	6.0	2.8	2.3	497.8	508.9	229.0	737.9	---	51.5	51.5	
1976/77															
Oct.-Dec.	51.5	710.8	---	762.3	1.5	0.7	---	208.0	210.2	61.8	272.0	---	490.3	490.3	
Jan.-Mar.	490.3	---	---	490.3	1.6	0.6	0.2	109.2	111.6	83.1	194.7	---	295.6	295.6	
Apr.-May	295.6	---	4/	295.6	1.3	0.5	1.2	62.5	65.5	34.4	99.9	---	195.7	195.7	
June-Sept.	195.7	---	---	195.7	1.6	1.1	0.6	34.6	37.9	66.8	104.7	---	91.0	91.0	
Mkt. year	51.5	710.8	4/	762.3	6.0	2.9	2.0	414.3	425.2	246.1	671.3	---	91.0	91.0	
1977/78															
Oct.-Dec.	91.0	780.9	---	871.9	1.5	0.8	---	197.1	199.4	56.0	255.4	---	616.5	616.5	
Jan.-Mar.	616.5	---	---	616.5	1.3	0.9	0.2	133.1	135.5	68.0	203.5	0.2	412.8	413.0	
Apr.-May	413.0	---	---	413.0	1.5	0.6	1.2	54.8	58.1	35.8	93.9	0.2	318.9	319.1	
June-Sept.	319.1	---	4/	319.1	1.7	1.3	0.6	71.3	74.9	53.7	128.6	13.1	177.4	190.5	
Mkt. year	91.0	780.9	4/	871.9	6.0	3.6	2.0	456.3	467.9	213.5	681.4	13.1	177.4	190.5	
1978/79															
Oct.-Dec.	190.5	731.3	---	921.3	1.4	1.1	---	235.7	238.2	46.6	284.8	36.6	600.4	637.0	
Jan.-Mar.	637.0	---	---	637.0	1.6	0.4	0.2	149.2	151.4	68.3	219.7	42.4	374.9	417.3	
Apr.-May	417.3	---	---	417.3	1.3	0.4	1.1	64.3	67.1	28.0	95.1	42.8	279.4	322.2	
June-Sept.	322.2	---	4/	322.2	1.7	1.3	0.5	95.5	99.0	63.7	162.7	43.6	115.9	159.5	
Mkt. year	190.5	731.3	4/	921.8	6.0	3.2	1.3	544.7	555.7	206.6	762.3	43.6	115.9	159.5	
1979/80															
Oct.-Dec.	159.5	808.6	---	968.1	1.6	1.5	---	243.1	246.2	74.2	320.4	45.3	602.4	647.7	
Jan.-Mar.	647.7	---	---	647.7	1.6	1.1	0.2	140.3	143.2	108.5	251.7	45.6	350.4	396.0	
Apr.-May	396.0	---	---	396.0	1.4	0.5	1.2	54.7	57.8	60.3	118.1	45.6	232.3	277.9	
June-Sept.	277.9	---	4/	277.9	1.4	1.9	0.6	45.6	49.5	81.9	131.4	43.9	102.6	146.5	
Mkt. year	159.5	808.6	4/	968.1	6.0	5.0	2.0	483.7	496.7	324.9	821.6	43.9	102.6	146.5	
1980/81 5/															
Oct.-Dec.	146.5	588.0	4/	734.5	1.6	1.2	---	198.3	201.1	66.3	267.4	43.7	423.4	467.1	
Jan.-Mar.	467.1	---	4/	467.1	1.6	1.0	0.2	67.3	70.1	84.1	154.2	43.5	269.4	312.9	
Apr.-May															
June-Sept.															
Mkt. year															

1/ Data may not add to totals due to independent rounding. 2/ Uncommitted inventory. 3/ Includes quantity under loan and farmer-owned reserve.
4/ Less than 50,000 bushels. 5/ Estimated.

Table 10.--Oats: Marketing year supply and disappearance, specified periods, 1975-81 1/

Year and periods beginning June 1	Supply				Disappearance										Ending stocks			
	Begin- ning stocks	Produc- tion	Imports	Total	Food	Alc. bever- ages	Domestic use			Exports	Total disap- pearance	Govt. owned 2/	Privately owned 3/	Total				
							Seed	Feed and residual	Total									
Million bushels																		
1975/76																		
June-Sept.	223.0	639.0	0.3	862.3	15.0	---	2.1	226.0	243.1	2.6	245.7	2.6	614.0	616.6				
Oct.-Dec.	616.6	---	0.1	616.7	11.0	---	2.1	102.7	115.8	8.1	123.9	---	492.8	492.8				
Jan.-Mar.	492.8	---	0.2	493.0	11.0	---	8.6	155.4	175.0	0.7	175.7	---	317.3	317.3				
Apr.-May	317.3	---	0.1	317.4	7.0	---	29.9	73.4	110.3	2.3	112.6	---	204.8	204.8				
Mkt. year	223.0	639.0	0.7	862.7	44.0	---	42.7	557.5	644.2	13.7	657.9	---	204.8	204.8				
1976/77																		
June-Sept.	204.8	540.4	0.1	745.3	14.4	---	2.3	193.9	210.6	4.9	215.5	---	529.8	529.8				
Oct.-Dec.	529.8	---	0.1	529.9	10.5	---	2.3	102.8	115.6	3.7	119.3	---	410.6	410.6				
Jan.-Mar.	410.6	---	0.6	411.2	10.6	---	9.2	132.8	152.6	0.5	153.1	---	258.1	258.1				
Apr.-May	258.1	---	0.6	258.7	6.9	---	32.1	54.9	93.9	0.5	94.4	---	164.3	164.3				
Mkt. year	204.8	540.4	1.4	746.6	42.4	---	45.9	484.4	572.7	9.6	582.3	---	164.3	164.3				
1977/78																		
June-Sept.	164.3	752.8	1.1	918.2	14.4	---	2.1	219.5	236.0	2.7	238.7	---	679.5	679.5				
Oct.-Dec.	679.5	---	0.5	680.0	10.7	---	2.1	92.4	105.2	6.8	112.0	---	568.0	568.0				
Jan.-Mar.	568.0	---	0.4	568.4	10.1	---	8.5	126.5	145.1	1.5	146.6	---	421.8	421.8				
Apr.-May	421.8	---	0.2	422.0	6.8	---	29.8	71.0	107.6	1.3	108.9	---	313.1	313.1				
Mkt. year	164.3	752.8	2.2	919.3	42.0	---	42.5	509.4	593.9	12.3	606.2	---	313.1	313.1				
1978/79																		
June-Sept.	313.1	581.7	0.3	895.1	14.7	---	1.8	224.8	241.3	7.9	249.2	1.5	644.4	645.9				
Oct.-Dec.	645.9	---	0.1	646.0	10.3	---	1.8	84.2	96.3	3.4	99.7	2.5	543.8	546.3				
Jan.-Mar.	546.3	---	0.2	546.5	10.7	---	7.2	146.3	164.2	0.7	164.9	2.7	378.9	381.6				
Apr.-May	381.6	---	0.1	381.7	5.3	---	25.3	70.4	101.0	0.7	101.7	2.7	277.3	280.0				
Mkt. year	313.1	581.7	0.7	895.5	41.0	---	36.1	525.7	602.8	12.7	615.5	2.7	277.3	280.0				
1979/80																		
June-Sept.	280.0	526.5	0.3	806.8	14.6	---	1.7	221.5	237.8	0.9	238.7	2.6	565.5	568.1				
Oct.-Dec.	568.1	---	0.2	568.3	10.4	---	1.7	77.5	89.6	1.9	91.5	2.6	474.2	476.8				
Jan.-Mar.	476.8	---	0.2	477.0	10.3	---	6.9	119.7	136.9	0.5	137.4	2.7	336.9	339.6				
Apr.-May	339.6	---	0.2	339.8	5.4	---	24.3	72.9	102.6	0.8	103.4	2.7	233.7	236.4				
Mkt. year	280.0	526.5	0.9	807.4	40.7	---	34.6	491.6	566.9	4.1	571.0	2.7	233.7	236.4				
1980/81 4/																		
June-Sept.	236.4	457.6	0.6	694.6	15.0	---	1.8	189.9	206.7	3.8	210.5	2.7	481.4	484.1				
Oct.-Dec.	484.1	---	0.2	484.3	10.0	---	1.8	79.2	91.0	2.8	93.8	2.7	387.8	390.5				
Jan.-Mar.	390.5	---	0.2	390.7	10.0	---	7.0	115.3	132.3	2.6	134.9	2.5	253.3	255.8				
Apr.-May																		
Mkt. year																		

1/ Data may not add to totals due to independent rounding. 2/ Uncommitted inventory. 3/ Includes quantity under loan and farmer-owned reserve.

4/ Estimated.

Table 11.--Corn and sorghum: Farm prices, acreage, production, and yield, 1950 to 1980 1/

Year	Corn					Sorghum				
	Farm price	Planted acreage	Harvested acreage	Production	Yield per acre	Farm price	Planted acreage	Harvested acreage	Production	Yield per acre
	Dol. per bushel	1,000 acres	1,000 acres	1,000 bushels	Bushels	Dol. per bushel	1,000 acres	1,000 acres	1,000 bushels	Bushels
1950	1.52	82450	72398	2704071	38.2	1.88	16055	10346	233536	22.6
1951	1.66	83275	71191	2628937	36.9	2.36	15028	8544	162863	19.1
1952	1.52	82230	71353	2980793	41.8	2.82	12269	5326	90741	17.0
1953	1.48	81574	70738	2881801	40.7	2.36	14590	6295	115719	18.4
1954	1.43	82185	68668	2707913	39.4	2.25	20144	11718	235575	20.1
1955	1.35	80332	68462	2872959	42.0	1.74	23921	12891	242638	18.8
1956	1.29	77828	64877	3075336	47.4	2.05	21384	9209	204841	22.2
1957	1.11	73180	63065	3045355	48.3	1.74	26886	19682	567506	28.8
1958	1.12	73351	63549	3356205	52.8	1.78	20675	16524	581012	35.2
1959	1.05	82742	72091	3824598	53.1	1.53	19508	15006	555441	36.1
1960	1.00	81429	71422	3906949	54.7	1.49	19598	15601	619954	39.7
1961	1.10	65919	57634	3597603	62.4	1.80	14294	10985	480208	43.7
1962	1.12	65017	55726	3606311	64.7	1.82	15060	11971	510284	44.1
1963	1.11	68771	59227	4019238	67.9	1.74	17516	13326	565394	43.9
1964	1.17	65823	55369	3484253	62.9	1.88	16770	11742	489796	41.7
1965	1.16	65171	55392	4102867	74.1	1.76	17079	13029	672698	51.6
1966	1.24	66347	57002	4167608	73.1	1.82	16372	12813	714992	55.8
1967	1.03	71156	60694	4860372	80.1	1.77	16945	14988	755344	50.4
1968	1.08	65126	55980	4449542	79.5	1.69	17793	13890	731277	52.6
1969	1.16	64264	54574	4687057	85.9	1.91	17231	13437	729919	54.3
1970	1.33	66863	57358	4152243	72.4	2.04	16957	13568	681179	50.4
1971	1.08	74179	64123	5646260	88.1	1.86	20547	16142	867907	53.8
1972	1.57	67126	57513	5579832	97.0	2.45	17035	13212	801350	60.7
1973	2.55	72253	62143	5670712	91.3	3.82	18994	15700	923224	58.8
1974	3.02	77935	65405	4701402	71.9	4.95	17588	13809	622711	45.1
1975	2.54	78719	67625	5840757	86.4	4.23	18080	15003	754354	49.0
1976	2.15	84588	71506	6280169	88.0	3.62	18143	14466	710797	49.1
1977	2.02	84328	71614	6505041	90.8	3.25	16636	13797	786944	56.6
1978	2.25	81675	71930	7267927	101.0	3.59	16197	13410	731270	54.5
1979	2.52	81393	72400	7938819	109.7	4.18	15277	12901	808842	62.7
1980	3.20	84106	73061	6647534	91.0	5.45	15894	12722	887997	46.2

1/ 1974-1978 acreage, yield, and production revised per December 1980 Field Crops Report, Stat. Bul. No. 646.

SOURCE: Crop Reporting Board, USDA.

Table 12.---Oats and barley: Farm prices, acreage, production, and yield, 1950 to 1980 1/

Year	Oats					Barley				
	Farm price	Planted acreage	Harvested acreage	Production	Yield per harvested acre	Farm price	Planted acreage	Harvested acreage	Production	Yield per harvested acre
	Dol. per bushel	1,000 acres	1,000 acres	1,000 bushels	Bushels	Dol. per bushel	1,000 acres	1,000 acres	1,000 bushels	Bushels
1950	0.79	45044	39306	1369199	34.8	1.19	13010	11155	303772	27.2
1951	0.82	41015	35233	1277647	36.3	1.26	10790	9424	257213	27.3
1952	0.79	42341	37012	1217433	32.9	1.37	9190	8236	257168	27.7
1953	0.74	43220	37530	1153205	30.7	1.17	9615	8680	246723	28.4
1954	0.71	46898	40551	1409601	34.8	1.09	14740	13370	379254	28.4
1955	0.69	47494	39027	1495978	38.3	0.92	16293	14523	403045	27.8
1956	0.60	44205	33333	1151598	34.5	0.99	14732	12852	376661	29.3
1957	0.60	41840	34065	1289880	37.9	0.89	16398	14872	442761	29.8
1958	0.58	37699	31247	1401410	44.8	0.90	16150	14791	477368	32.3
1959	0.65	35064	27758	1050051	37.8	0.86	16766	14869	420203	28.3
1960	0.60	31419	26580	1153332	43.4	0.84	15527	13856	429005	31.0
1961	0.64	32314	23886	1010314	42.3	0.98	15623	12806	392441	30.6
1962	0.62	29500	22377	1012197	45.2	0.92	14380	12214	427726	35.0
1963	0.62	28054	21308	965510	45.3	0.90	13452	11236	392833	35.0
1964	0.63	25634	19759	852257	43.1	0.95	11652	10277	386059	37.6
1965	0.62	24046	18522	929554	50.2	1.02	10123	9166	393055	42.9
1966	0.67	23343	17877	803324	44.9	1.06	11164	10250	392108	38.3
1967	0.66	20710	16110	793800	49.3	1.01	10077	9230	373745	40.5
1968	0.60	23342	17708	950689	53.7	0.92	10486	9732	426151	43.8
1969	0.58	23561	17971	965863	53.7	0.88	10291	9557	427055	44.7
1970	0.62	24410	18594	915236	49.2	0.97	10476	9712	416091	42.8
1971	0.60	21831	15705	878079	55.9	0.99	11061	10104	462423	45.8
1972	0.72	19990	13410	690016	51.5	1.21	10567	9645	421719	43.7
1973	1.18	18605	13770	659136	47.9	2.14	11045	10295	417434	40.5
1974	1.53	17013	12608	600655	47.6	2.81	8713	7930	294669	37.7
1975	1.46	16434	13038	638960	49.0	2.42	9373	8617	379162	44.0
1976	1.56	16620	11634	540441	45.7	2.25	9301	8439	383007	45.4
1977	1.10	17732	13485	752774	55.8	1.78	10778	9728	427784	44.0
1978	1.20	16407	11126	581657	52.3	1.92	9989	9248	454759	48.2
1979	1.36	13957	9679	526551	54.4	2.29	8110	7522	382708	50.9
1980	1.80	13360	8640	457593	53.0	2.80	8283	7233	358544	48.6

1/ 1974-1978 acreage, yield, and production revised per December 1980 Field Crops Report, Stat. Bul. No. 646.

SOURCE: Crop Reporting Board, USDA.

Table 13.--Livestock, poultry and milk-feed price ratios, by months, 1975-81

Year beginning October	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Average
HOG/CORN, U.S. Basis 1/													
1975	22.3	21.1	20.0	19.5	19.3	18.2	19.1	18.2	18.0	16.9	16.1	15.3	18.7
1976	14.1	15.4	16.3	16.3	16.8	15.8	15.6	18.1	19.8	23.8	26.3	25.2	18.6
1977	23.9	20.1	21.3	22.0	23.4	21.6	20.1	20.9	20.9	21.0	23.9	24.2	21.9
1978	25.8	23.4	23.0	24.0	24.1	21.8	19.4	18.4	15.9	14.4	14.3	14.8	19.9
1979 2/	14.0	15.2	15.8	14.8	15.4	13.9	11.9	11.9	13.3	15.1	15.8	15.3	14.4
1980 2/	15.8	14.9	13.8	12.8	12.8	11.9	12.2						
BEEF-STEER/CORN, Omaha 3/													
1975	17.4	17.7	17.6	16.0	14.9	13.8	16.6	14.8	14.2	13.4	13.8	14.3	15.4
1976	16.1	18.0	17.4	16.1	16.0	15.9	17.5	19.0	19.2	21.5	24.2	24.2	18.8
1977	23.6	20.7	21.1	21.6	22.2	22.7	23.3	24.5	23.8	25.6	26.5	27.8	23.6
1978	26.8	26.4	26.6	28.5	30.5	32.7	33.2	30.8	26.5	25.0	25.6	28.6	28.4
1979 2/	27.8	28.9	28.8	29.4	29.0	30.0	27.6	26.6	26.6	25.3	24.3	23.1	27.3
1980 2/	21.3	19.5	19.5	19.1	19.3	19.4	20.0						
MILK/FEED, U.S. Basis 4/													
1975	1.4	1.5	1.5	1.5	1.4	1.4	1.4	1.4	1.3	1.3	1.3	1.3	1.4
1976	1.4	1.4	1.3	1.3	1.3	1.3	1.3	1.2	1.3	1.4	1.5	1.6	1.4
1977	1.6	1.6	1.5	1.5	1.5	1.5	1.5	1.5	1.4	1.5	1.5	1.6	1.5
1978	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.5	1.5	1.4	1.5	1.5	1.5
1979 2/	1.6	1.6	1.5	1.5	1.6	1.6	1.6	1.5	1.5	1.5	1.4	1.4	1.5
1980 2/	1.4	1.4	1.4	1.4	1.4	1.4	1.4						
EGG/FEED, U.S. Basis 5/													
1975	7.1	8.1	9.0	8.6	8.2	7.4	7.3	7.5	6.8	6.8	7.6	7.7	7.7
1976	7.8	8.7	9.1	8.5	8.1	7.3	6.8	5.9	5.8	6.7	7.2	7.6	7.5
1977	7.1	7.3	7.4	6.7	7.5	7.4	6.7	6.3	5.6	6.4	7.0	7.3	6.9
1978	7.0	7.5	8.0	7.8	7.7	8.0	7.4	6.9	6.7	6.1	6.1	6.4	7.1
1979 2/	6.1	6.8	7.3	6.6	5.9	6.3	6.0	5.3	5.5	5.7	6.0	6.2	6.2
1980 2/	5.7	6.0	6.6	5.9	5.7	5.7	6.0						
BROILER/FEED, U.S. Basis 6/													
1975	3.5	3.4	3.0	3.1	3.2	3.1	3.0	3.1	2.8	2.8	2.7	2.5	3.0
1976	2.4	2.3	2.3	2.5	2.7	2.7	2.6	2.6	2.7	3.0	2.9	3.1	2.6
1977	3.0	2.7	2.6	2.8	3.0	3.0	3.3	3.3	3.5	3.7	3.1	3.1	3.1
1978	2.9	2.8	2.9	3.1	3.3	3.1	3.0	3.2	2.9	2.5	2.3	2.4	2.9
1979 2/	2.2	2.6	2.6	2.8	2.6	2.5	2.3	2.5	2.6	3.3	3.0	2.9	2.7
1980 2/	2.8	2.5	2.5	2.5	2.6	2.6	2.3						
TURKEY/FEED, U.S. Basis 7/													
1975	4.3	4.5	4.4	4.0	3.9	4.0	3.9	3.9	3.5	3.3	3.4	3.4	3.9
1976	3.5	3.5	3.7	3.5	3.4	3.6	3.4	3.4	3.5	3.5	3.8	4.0	3.6
1977	4.3	4.5	4.5	4.3	4.2	4.3	4.2	4.3	4.4	4.5	4.8	4.9	4.4
1978	5.0	5.1	5.4	5.0	4.6	4.3	4.3	4.2	3.9	3.5	3.7	3.7	4.4
1979 2/	3.9	4.5	4.3	3.8	3.6	3.5	3.4	3.1	3.1	3.5	3.5	3.7	3.7
1980 2/	3.9	3.8	3.5	3.1	3.1	3.2	3.0						

1/ Number bushels of corn equal in value to 100 lbs. of hog liveweight. 2/ Preliminary.
3/ Based on price of beef-steers 900-1,100 pounds, choice instead of average grade all steers previously published. 4/ Pounds 16% dairy feed equal in value to one pound whole milk. 5/ Number of pounds of laying feed equal in value to one dozen eggs. 6/ Number of lbs. of broiler grower feed equal in value to one lb. broiler liveweight. 7/ Pounds of turkey grower feed equal in value to one lb. turkey liveweight.

Source: Agricultural Prices, Crop Reporting Board, USDA.

Table 14.-- Cash prices at principal markets, 1976-81

Year beginning October	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Simple average
Dollars													
CORN, No. 2 Yellow, Chicago (per bushel)													
1976	2.49	2.33	2.44	2.53	2.54	2.52	2.50	2.41	2.27	2.05	1.78	1.80	2.30
1977	1.84	2.14	2.19	2.19	2.21	2.36	2.51	2.57	2.51	2.28	2.17	2.13	2.26
1978	2.22	2.28	2.27	2.29	2.35	2.42	2.53	2.66	2.83	3.00	2.82	2.78	2.54
1979	2.73	2.59	2.69	2.54	2.65	2.60	2.61	2.70	2.70	3.08	3.36	3.44	2.81
1980	3.43	3.43	3.54	3.56	3.49	3.48	*3.53						
CORN, No. 2 Yellow, Omaha (per bushel)													
1976	2.36	2.17	2.30	2.38	2.38	2.35	2.29	2.21	2.10	1.90	1.66	1.67	2.15
1977	1.79	2.02	2.04	2.02	2.03	2.14	2.25	2.34	2.33	2.13	1.98	1.95	2.08
1978	2.05	2.04	2.09	2.12	2.13	2.17	2.26	2.40	2.59	2.68	2.45	2.37	2.28
1979	2.37	2.32	2.36	2.26	2.33	2.23	2.32	2.43	2.50	2.81	2.98	3.01	2.49
1980	3.16	3.34	3.30	3.29	3.18	3.17	*3.24						
SORGHUM, No. 2 Yellow, Kansas City (per cwt.)													
1976	3.88	3.60	3.77	3.91	3.85	3.75	3.62	3.53	3.28	3.15	2.73	2.78	3.49
1977	3.05	3.40	3.36	3.37	3.49	3.78	3.92	3.92	3.82	3.54	3.41	3.43	3.54
1978	3.61	3.67	3.64	3.71	3.73	3.77	3.81	3.92	4.41	4.89	4.44	4.34	4.00
1979	4.42	4.41	4.57	4.21	4.35	4.20	4.09	4.31	4.49	5.36	5.71	5.61	4.65
1980	5.65	5.91	5.82	5.79	5.52	5.46	*5.49						
Year beginning June	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	Simple average
Dollars per bushel													
OATS, No. 2 Heavy White, Minneapolis													
1976	1.93	1.84	1.67	1.67	1.66	1.62	1.67	1.78	1.80	1.76	1.81	1.68	1.74
1977	1.38	1.15	1.02	1.11	1.17	1.34	1.32	1.32	1.32	1.33	1.40	1.43	1.27
1978	1.36	1.24	1.28	1.36	1.39	1.47	1.40	1.47	1.54	1.60	1.48	1.55	1.43
1979	1.68	1.60	1.47	1.55	1.65	1.67	1.59	1.52	1.50	1.48	1.52	1.62	1.57
1980	1.67	1.80	1.70	1.86	1.96	2.15	2.16	2.20	2.25	2.23	*2.21		
BARLEY, No. 2 or Better Feed, Minneapolis													
1976	2.62	2.45	2.48	2.68	2.46	2.21	2.05	2.20	2.35	2.29	2.28	2.13	2.35
1977	<u>1</u> /1.76	1.63	1.50	1.58	1.66	1.65	1.65	1.65	1.65	1.66	1.91	1.90	1.68
1978	1.84	1.71	1.68	1.77	1.81	1.88	1.79	1.71	1.69	1.86	1.89	1.96	1.80
1979	2.16	2.39	2.15	2.22	2.34	2.11	2.15	2.09	2.04	2.06	2.12	2.09	2.16
1980	2.15	2.48	2.39	2.43	2.77	3.03	2.75	2.81	2.90	2.63	*2.51		
BARLEY, No. 3 or Better Malting, 65% or Better Plump, Minneapolis													
1976	3.55	3.59	3.37	3.24	3.21	3.00	2.95	3.00	2.91	2.98	2.91	2.83	3.13
1977	2.38	2.02	1.92	2.15	<u>2</u> /2.25	2.36	2.32	2.26	2.33	2.32	2.44	2.51	2.27
1978	2.39	2.13	2.19	2.27	2.26	2.47	2.40	2.30	2.33	2.46	2.59	2.73	2.38
1979	2.80	2.82	2.67	3.10	3.18	3.06	2.93	2.87	2.81	2.69	2.73	2.82	2.87
1980	2.99	3.36	3.27	3.63	3.80	3.88	3.77	3.75	3.83	3.71	*3.84		

1/ Prior to June 1977, No. 3 Feed. 2/ Prior to October 1977, 70% or better plump. *Preliminary.

Source: Grain Market News, AMS, USDA.

Table 15.--Average prices received by farmers, United States, by months, 1976-81

Year beginning October	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Average weighted by sales 1/
Dollars													
CORN, per bushel 2/													
1976	2.33	2.02	2.24	2.34	2.34	2.35	2.31	2.25	2.12	1.88	1.63	1.60	2.15
1977	1.67	1.88	1.97	2.00	2.03	2.15	2.24	2.29	2.28	2.16	2.01	1.98	2.02
1978	1.97	2.02	2.09	2.11	2.18	2.22	2.27	2.35	2.49	2.64	2.54	2.51	2.25
1979	2.41	2.27	2.38	2.45	2.39	2.40	2.36	2.42	2.49	2.73	2.92	3.01	2.52
1980	2.99	3.10	3.19	3.19	3.22	3.25	*3.20						3.20
SORGHUM, per 100 pounds 2/													
1976	3.68	3.30	3.51	3.59	3.51	3.55	3.44	3.20	3.12	2.84	2.63	2.52	3.62
1977	2.80	3.03	3.05	3.15	3.20	3.39	3.62	3.66	3.64	3.50	3.37	3.22	3.25
1978	3.35	3.45	3.58	3.54	3.55	3.54	3.58	3.66	4.30	4.46	4.27	4.24	3.59
1979	3.90	3.99	3.90	4.05	3.98	4.05	3.96	4.04	4.49	4.95	5.12	5.12	4.18
1980	5.36	5.44	5.49	5.48	5.33	5.17	*5.21						5.45
Year beginning June	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	Average weighted by sales 1/
Dollars per bushel													
OATS 2/													
1976	1.64	1.64	1.48	1.49	1.46	1.45	1.51	1.58	1.63	1.64	1.64	1.52	1.56
1977	1.29	1.02	.93	.94	1.04	1.10	1.13	1.18	1.22	1.17	1.19	1.24	1.10
1978	1.16	1.08	1.06	1.06	1.08	1.15	1.19	1.22	1.25	1.27	1.29	1.29	1.20
1979	1.35	1.33	1.24	1.29	1.31	1.41	1.31	1.39	1.37	1.34	1.38	1.43	1.36
1980	1.48	1.50	1.53	1.63	1.65	1.84	1.92	1.98	2.01	2.08	*2.04		1.80
BARLEY 2/													
1976	2.60	2.51	2.35	2.33	2.22	2.11	2.08	2.19	2.19	2.25	2.22	2.12	2.25
1977	1.93	1.53	1.53	1.69	1.63	1.82	1.79	1.90	1.98	1.90	1.93	2.15	1.78
1978	2.04	1.83	1.86	1.85	1.90	1.93	1.90	1.95	1.87	1.98	1.96	2.07	1.92
1979	2.30	2.22	2.23	2.33	2.32	2.40	2.31	2.27	2.23	2.18	2.15	2.21	2.29
1980	2.36	2.52	2.59	2.65	2.81	2.90	2.97	3.09	3.05	3.04	*2.97		2.80
Year beginning May	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	Average weighted by sales 1/
Dollars per ton													
HAY													
1976	64.10	59.60	59.00	58.70	60.80	60.10	59.00	60.90	62.70	63.90	63.20		60.30
1977	68.10	61.30	56.80	52.50	50.00	48.20	48.50	49.50	50.50	51.80	51.40	51.40	54.00
1978	55.30	51.20	49.20	49.00	47.80	47.10	46.40	47.30	48.90	50.70	50.20	49.90	49.80
1979	65.60	58.00	56.00	57.50	58.00	60.80	58.50	59.70	59.10	60.00	57.40	60.10	59.20
1980	69.10	64.00	66.50	68.40	70.40	75.80	74.60	75.20	73.80	74.00	71.60	72.70	69.80

1/ Includes an allowance for unredeemed loans and purchase agreement deliveries valued at the average loan rate, by States; excludes government payments. 2/ Prior to January 1977 mid-month prices.

*Preliminary (mid-month price).

Source: Agricultural Prices, Crop Reporting Board, USDA.

Table 16.--Price trends, selected feeds and corn products

Item	Unit	1981				
		Oct.-Sept. 1979/80	January	February	March	April
		1/				
WHOLESALE, MOSTLY BULK 2/						
Soybean meal, 44%, solvent, Decatur	:Dol./short ton	182	224	212	210	222
Soybean meal, high protein, Decatur	"	198	240	229	226	239
Cottonseed meal, 41%, expeller, Memphis	"	164	205	179	185	207
Linseed meal, 34%, solvent, Minneapolis	"	154	161	150	150	158
Peanut meal, 50%, S.E. Mills	"	186	---	230	213	210
Meat meal, 50%, Illinois Prod. Points	"	227	261	238	225	240
Fishmeal, 65%, domestic, East Coast	"	380	469	421	405	419
Gluten feed, 60%, Chicago	"	125	140	120	114	121
Gluten meal, 60%, Chicago	"	248	308	292	239	235
Brewers' dried grains, 24%, Chicago	"	110	149	122	94	111
Distillers' dried grains, 28%, Cincinnati	"	138	175	168	153	145
Feather meal, Jackson, Mississippi	"	234	314	276	245	258
Wheat bran, Kansas City	"	95	123	99	97	104
Wheat middlings, Kansas City	"	95	123	99	97	104
Rice bran, Arkansas	"	79	107	78	68	69
Hominy feed, Illinois Points	"	88	118	104	100	111
Alfalfa meal, 17%, dehy., Kansas City	"	110	136	132	126	126
Cane molasses, New Orleans	"	91	117	118	115	103
Molasses beet pulp, Los Angeles	"	126	144	153	---	138
Animal fat, Chicago	"	15.3	16.3	16.2	16.4	16.8
Urea, 42%, N., Fort Worth	"	198	215	215	228	228
Corn, No. 2, white, Kansas City	:Dol./bu.	4.70	5.59	5.57	5.42	5.35
PRICES PAID, U.S. BASIS 3/						
Soybean meal, 44%	:Dol./cwt.	12.92	15.90	15.50	15.00	15.20
Cottonseed meal, 41%	"	12.61	15.60	15.50	15.40	15.30
Wheat bran	"	9.04	10.60	10.60	10.50	10.50
Wheat middlings	"	8.89	10.20	10.20	10.10	10.00
Broiler grower feed	:Dol./short ton	197	237	238	229	234
Laying feed	"	178	218	219	215	215
Turkey grower feed	"	210	257	255	254	254
Chick starter	"	203	243	245	238	242
Dairy feed, 16%	"	168	203	201	196	197
Beef cattle concentrate, 32-36%	:Dol./cwt.	10.68	12.80	12.60	12.10	12.20
Hog concentrate, 38-42%, protein	"	14.28	16.90	16.30	15.80	16.20
Stock salt	"	4.86	5.50	5.51	5.62	5.64
CORN PRODUCTS, WHOLESALE 4/						
Corn meal, New York						
White	:Dol./cwt.	14.88	20.37	20.48	20.62	20.57
Yellow	"	11.19	13.32	13.48	13.62	13.56
Grits (brewers'), Chicago	"	8.88	10.66	10.78	10.88	10.83
Syrup, Chicago, West	Cts./lb.	12.42	16.71	16.71	16.20	15.69
Sugar (dextrose), Chicago, West	"	22.98	31.16	29.90	28.21	27.65
High-fructose (dry weight tank car), Chicago, West	"	20.10	23.94	22.53	22.53	22.54
Corn starch (f.o.b. Midwest)	:Dol./cwt.	10.66	12.14	11.97	11.97	12.46
1/ Preliminary. 2/ Feed Market News, AMS, USDA, except urea which is from Feedstuffs, Miller Publishing Co., Minneapolis, Minnesota. 3/ Agricultural Prices, CRB, USDA. 4/ Milling and Baking News, Kansas City, Missouri, except starch which is from industry sources.						

1/ Preliminary. 2/ Feed Market News, AMS, USDA, except urea which is from Feedstuffs, Miller Publishing Co., Minneapolis, Minnesota.
 3/ Agricultural Prices, CRB, USDA. 4/ Milling and Baking News, Kansas City, Missouri, except starch which is from industry sources.

Table 17.--Feed grain support loan status,
1977-80 crops, as of May 13, 1981

Item	: Placed : under : loan	: Redeemed : by : farmers	: Delivered : to : CCC	: In : reserve : program : 1/	: Loans : outstanding	: Total in : reserve : and loans : outstanding 1/
	<u>Million bushels</u>					
<u>CORN</u>						
1977	: 1,159	: 689	: 94	: 220	: 0	: 220
1978	: 642	: 582	: 2	: 58	: 1	: 59
1979	: 558	: 470	: <u>2/</u>	: 85	: 3	: 88
1980	: 832	: 361	: ---	: 245	: 226	: 471
<u>SORGHUM</u>						
1977	: 217	: 133	: 41	: 1	: 0	: 1
1978	: 92	: 87	: 5	: ---	: 0	: 0
1979	: 64	: 63	: ---	: <u>2/</u>	: 0	: <u>2/</u>
1980	: 31	: 7	: ---	: ---	: 24	: 24
<u>OATS</u>						
1977	: 83	: 56	: 3	: 2	: 0	: 2
1978	: 25	: 25	: <u>2/</u>	: <u>2/</u>	: 0	: <u>2/</u>
1979	: 12	: 12	: ---	: ---	: 0	: 0
1980	: 6	: 4	: ---	: ---	: 3	: 3
<u>BARLEY</u>						
1977	: 87	: 65	: 3	: 1	: 0	: 1
1978	: 68	: 63	: <u>2/</u>	: 5	: <u>2/</u>	: 5
1979	: 30	: 27	: ---	: 3	: <u>2/</u>	: 3
1980	: 31	: 15	: ---	: 4	: 12	: 16

1/ Reserve corn, sorghum, and oats have been called. 2/ Less than 500,000 bushels.

SOURCE: Agricultural Stabilization and Conservation Service.

Table 18.-- Principal Features of Voluntary Feed Grain, Wheat and Rye Programs, 1980 and 1981 Crops

	1980 Crops	1981 Crops
Requirements for Program Benefits	All producers who report their plantings to their ASCS office are eligible for program benefits. There was no set-aside or land diversion program for wheat or feed grains, nor special wheat grazing and hay programs. Producers who plant within their normal crop acreage (NCA) ^{1/} are eligible for benefits based on higher target prices than those whose plantings exceed their NCA.	All producers who wish to become eligible for deficiency payments and regular disaster payments must report their plantings to their ASCS office. There is no set-aside or land diversion program for wheat or feed grains, nor special wheat grazing and hay programs. Producers are not required to plant within the NCA of their farms to qualify for program benefits.
	<u>Dollars per bushel</u>	<u>Dollars per bushel</u>
Price Support Loan and Purchase Rates ^{2/}	Corn \$2.25 Sorghum 2.14 Barley 1.83 Oats 1.16 Wheat 3.00 Rye 1.91	Corn \$2.40 Sorghum 2.28 Barley 1.95 Oats 1.24 Wheat 3.20 Rye 2.04
Farmer-owned Grain Reserve Loan Rates ^{3/}	Corn \$2.40 Sorghum 2.23 Barley 1.95 Oats 1.23 Wheat 3.30	Corn \$2.55 Sorghum 2.42 Barley 2.07 Oats 1.31 Wheat 3.50
Target Prices ^{4/}	Corn \$2.35/\$2.05 Sorghum 2.50/ 2.45 Barley 2.55/ 2.29 Wheat 3.63/ 3.08	Corn \$2.40 Sorghum 2.55 Barley 2.60 Wheat 3.81
National Program Acreages ^{5/}	<u>Million Acres</u> Corn 84.1 Sorghum 12.8 Barley 8.7 Wheat 75.0	<u>Million Acres</u> (preliminary) Corn 90.1 Sorghum 15.4 Barley 9.7 Wheat 71.0
Harvested Acreages	Corn 73.1 Sorghum 12.7 Barley 7.2 Wheat 70.9	
National Allocation Factors ^{6/}	<u>Percent</u> Corn 100.0 Sorghum 94.8 Barley 100.0 Wheat 100.0	<u>Percent</u> (To be determined)
Disaster Payments for Prevented Plantings and Low Yields	Limited to a total of \$100,000 per person for wheat, feed grain, rice, and upland cotton programs combined. This is separate from the limitation on deficiency payments.	Same as 1980, but producers have the option of accepting subsidized crop insurance. Producers who accept subsidized crop insurance will be ineligible for ASCS disaster payments on that crop.

Continued

Table 18.-- Principal Features of Voluntary Feed Grain, Wheat and Rye Programs, 1980 and 1981 Crops (continued)

1/ A normal crop acreage (NCA) has been established for every farm based on the acreage of 14 nationally designated crops planted on the farm in 1977. NCA crops include barley, corn, dry edible beans, flax, oats, rice, rye, sorghum, soybeans, sugarbeets, sugarcane, sunflowers, upland cotton, and wheat. Additional crops may be included when recommended by the State ASC committee.

2/ Nonrecourse loans and purchases are available from county ASCS offices for wheat, rye, barley, and oats through March 31 and for corn and sorghum through May 31 of the following year. Loans mature on demand, but no later than the last day of the 9th calendar month following the month the loan is made. Loan rates are established for all counties to reflect the national average rates.

The interest rate on 1980-crop loans was 11-1/2 percent. The interest rate on 1981 crop loans is 14-1/2 percent. The 1981 crop loans will carry a "floating" interest rate, subject to adjustment each October 1 and April 1, to reflect the cost to the Commodity Credit Corporation (CCC) of borrowing money from the U.S. Treasury.

3/ To be eligible for the reserve, commodities must be under price support loan. Reserve agreements are for three years. Farmers receive annual payments in advance for storage, whether the grain is stored on or off the farm. Interest charges after the first year are waived on reserve loans, and first year interest was waived effective January 7, 1980 on corn entered in the reserve between October 22, 1979 and August 25, 1980 and on 1980-crop feed grains and wheat placed in the reserve. When prices rise and a reserve is released, farmers may repay their loans or keep their grain in the reserve. After release, storage payments stop on a State-by-State basis, depending on a State's average market price in the past month's latest reporting period. When prices rise further and a reserve is called, farmers must pay off their loans, or forfeit the grain, or begin to pay interest at the rate of 15-1/4 percent. All determinations on release and call are based on the national average market price of the commodity in relation to certain percentages of the then-current national average loan rate. Release levels have been 125 percent of the loan rates for feed grains and 140-150 percent for wheat. Call levels have been 140-145 percent of the loan rates for feed grains and 175-185 percent for wheat.

Basically, the reserve operates as it has since it was introduced in 1977, but there have been various changes in release and call levels, loan rates, storage payments, when entry into the reserve is permitted, interest charges on loans, and in the time farmers are allowed after call to redeem their loans.

4/ If the national weighted average market price received by farmers during the first 5 months of the marketing year (June through October for wheat and barley; October through February for corn and sorghum) is below the target price, deficiency payments may be made to eligible producers. Deficiency payment rates are the difference between the target price and the higher of (1) the national weighted average market price received for the first 5 months of the marketing year or (2) the national average loan rate. For 1980 crops, farmers who planted within their NCA are eligible for benefits based on higher target prices than those whose plantings exceed their NCA.

In order to qualify for full target price protection, farmers could not plant for harvest more wheat or corn, sorghum, or barley in 1980 or in 1981 than was considered planted for harvest of these crops the year before. Any deficiency payments to farmers who exceed this acreage will be subject to an allocation factor that could reduce payments by up to 20 percent.

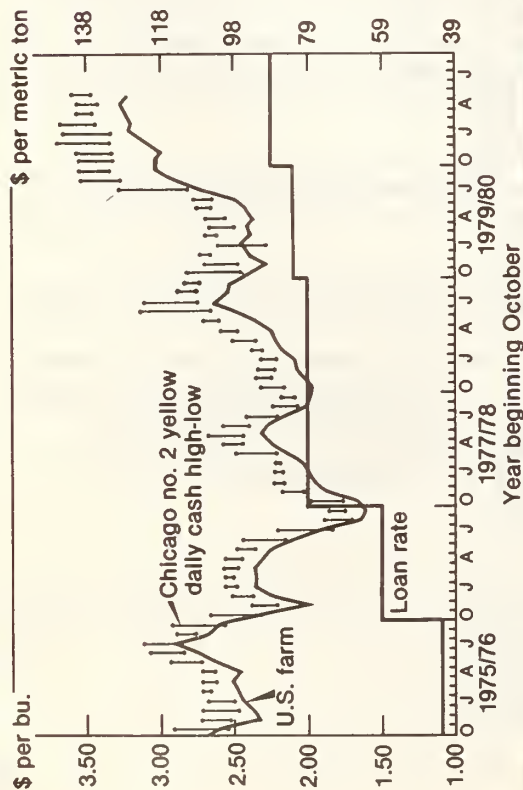
5/ National program acreage (NPA) is the estimated acreage needed to meet domestic and export needs (less imports) plus any desired adjustments in stocks. The NPA may be adjusted later in the year, based on the most recent information, for the purpose of calculating the national allocation factor, which may be applied in determining deficiency payments.

6/ The national allocation factor for each crop is determined by dividing the final national program acreage by the harvested acreage. By law, the factor cannot be less than 80 percent nor more than 100 percent.

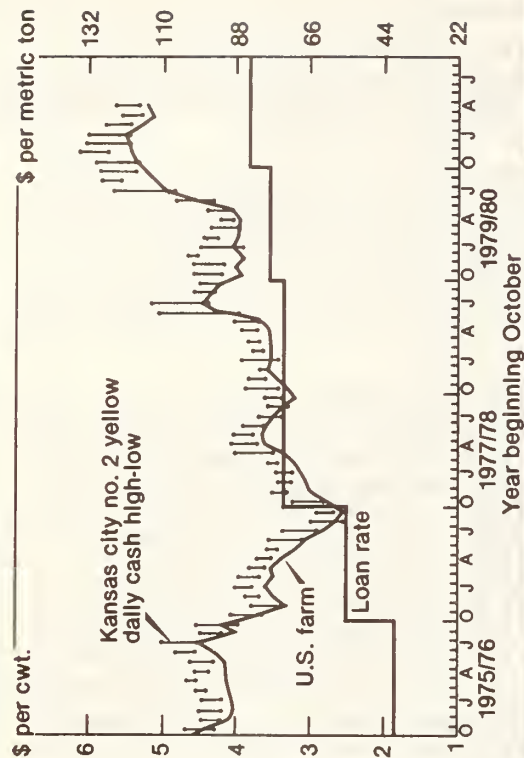
If deficiency payments are made, they are computed by multiplying the payment rate times the farm's established yield, times the number of acres planted for harvest. For farmers who are not eligible for full target price protection, this product then is multiplied by the national allocation factor.

Deficiency payments are limited to \$50,000 per person for wheat, feed grain, rice, and upland cotton programs combined. This limitation is the same for 1980 and 1981 crops. It is separate from the limitation on payments for prevented planting or low yield disaster losses. Nor does it apply to CCC loans or purchases.

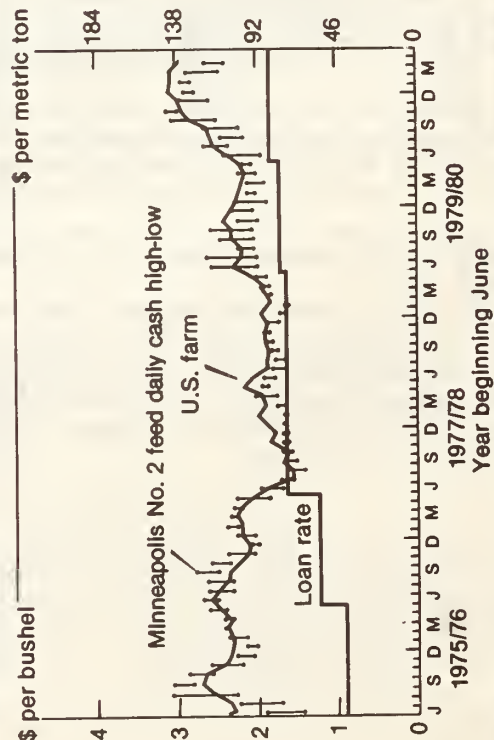
Corn Prices



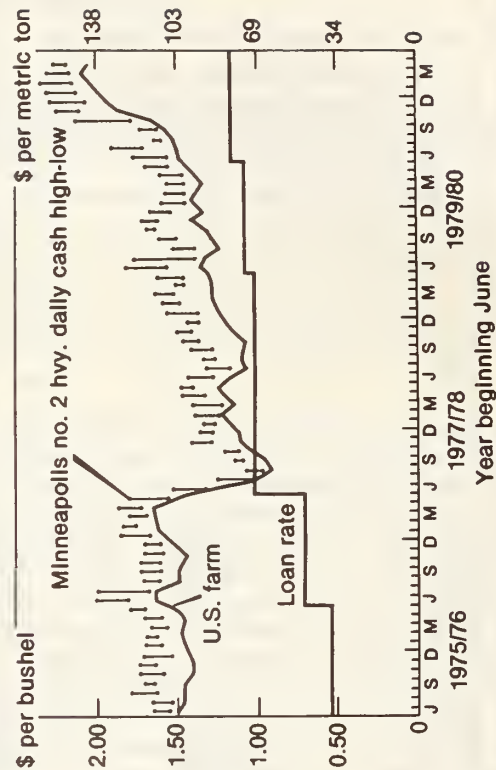
Sorghum Prices



Barley Prices



Oat Prices



LIST OF TABLES

	<u>Page</u>	<u>Table</u>
<u>SUPPLY AND DISAPPEARANCE</u>		
<u>ANNUAL: 1975-81</u>		
Feed grains.....	2	1
Corn.....	16	2
Sorghum.....	17	3
Barley.....	18	4
Oats.....	19	5
 <u>QUARTERLY: 1975-81</u>		
Feed grains.....	20	6
Corn.....	21	7
Sorghum.....	22	8
Barley.....	23	9
Oats.....	24	10
 <u>HISTORICAL SERIES: 1950-80</u>		
Corn: Farm prices, acreage, production, and yield.....	25	11
Sorghum: Farm prices, acreage, production, and yield..	25	11
Barley: Farm prices, acreage, production, and yield...	26	12
Oats: Farm prices, acreage, production, and yield.....	26	12
 <u>PRICES</u>		
Livestock, poultry and milk-feed prices ratios, by months, 1975-81.....	27	13
Cash prices at principal markets, 1976-81.....	28	14
Average prices received by farmers, United States, by months, 1976-81.....	29	15
Price trends, selected feeds and corn products January-April, 1981.....	30	16
Feed grain price support loan status, 1977-80 crops.....	31	17
 <u>SPECIAL ARTICLE</u>		
Estimated food, seed, and industrial uses of feed grains.....	12	
 <u>GOVERNMENT PROGRAMS</u>		
Grain program provisions.....	32-33	18

UNITED STATES DEPARTMENT OF AGRICULTURE
WASHINGTON, D.C. 20250

OFFICIAL BUSINESS
PENALTY FOR PRIVATE USE, \$300

POSTAGE AND FEES PAID
U.S. DEPARTMENT OF
AGRICULTURE
AGR 101

FIRST CLASS



To stop mailing ☐ or to change your
address ☐ send this sheet with label
intact, showing new address, to Informa-
tion, Staff, ESS, U.S. Dept. of Agricul-
ture, Rm. 0054 South Building, 14th &
Independence Ave. S.W., Wash., D.C.
20250.

8508 USNACU A422 18008 0001
USDA NAL CURRENT SERIAL RECO-
RD
BELTSVILLE MD 20012